Question 2

What is the scope of the HIV/AIDS Epidemic in Indiana?

Overall HIV/AIDS Trends

Throughout this report, unless mentioned otherwise, the time period that is reported on covers the 12 month period from January 1, 2003 to December 31, 2003.

At the end December, 2003 Indiana had a total of 3,764 residents infected with HIV, and 3,601 residents that had developed AIDS. That adds up to a total 7,365 persons living with HIV/AIDS in Indiana by the end of 2003. This number, also called the prevalence number, is the number of all persons that have been infected with the HIV virus sometime in the past, are either HIV positive only, or have developed AIDS, and are still alive at the cut-off time for data collection for this report. In comparison, the number of HIV/AIDS infected people at the end of 2002 was 7,006 persons. Indiana has seen an increase of 5.1% of HIV/AIDS infected persons over the past year.

In order to be able to compare the absolute numbers of cases with other entities such as surrounding states or the nation as a whole, the absolute numbers of infected persons will be converted into rates, in this case a prevalence rate per 100,000 persons of the specific population. By dividing the number of infected persons by the total number of the population the prevalence rate per 100,000 for HIV is 60.8, for AIDS it is 58.1 and for HIV/AIDS combined it is 118.9 per 100,000 people.

In order to estimate the difference that enters the calculation of the HIV, AIDS and HIV/AIDS rates by using the updated population projections for 2003 compared to the population projections for 2002 in the last report, the authors have calculated the rates for 2003 by dividing the absolute prevalence numbers by the population numbers for 2002. The results are 60.5 per 100,000 for HIV, 57.9 per 100,000 for AIDS, and 118.4 per 100,000 for HIV/AIDS. Compared to the calculated rates using the latest population projections the difference is in the range of 0.3 per 100,000 persons.

Compared to the other states and the U.S., Indiana continues to rank in the midfield. Indiana is being ranked 25th by number of cumulative reported AIDS cases through 2003, the same ranking as the previous year. Compared to its neighboring states, Table 7 shows a pulled-out section of the larger Table 6 on the cumulative reported number of AIDS cases for Indiana.

Table 6: Cumulative Number of Reported AIDS Cases by State through December 2003[3]

Rank	State	HIV/AIDS Numbers	Rank	State	HIV/AIDS Numbers
	United States	902,223	29	Oklahoma	4,441
1	New York	162,446	30	Minnesota	4,252
2	California	133,292	31	Kentucky	4,192
3	Florida	94,725	32	Wisconsin	4,136
4	Texas	62,983	33	Arkansas	3,581
5	New Jersey	46,703	34	Delaware	3,231
6	Illinois	30,139	35	Hawaii	2,833
7	Pennsylvania	29,988	36	Kansas	2,659
8	Georgia	27,915	37	New Mexico	2,389
9	Maryland	26,918	38	Rhode Island	2,363
10	Massachusetts	18,525	39	Utah	2,176
11	District of Columbia	15,841	40	Iowa	1,567
12	Virginia	15,723	41	West Virginia	1,352
13	Louisiana	15,653	42	Nebraska	1,296
14	Ohio	13,502	43	Maine	1,084
15	Connecticut	13,464	44	New Hampshire	995
16	North Carolina	13,456	45	Idaho	572
17	Michigan	13,326	46	Alaska	565
18	South Carolina	11,818	47	Vermont	457
19	Washington	10,987	48	Montana	366
20	Tennessee	10,740	49	South Dakota	218
21	Missouri	10,406	50	Wyoming	212
22	Arizona	9,208	51	North Dakota	115
23	Colorado	8,073		Guam	65
24	Alabama	7,607		Puerto Rico	28,301
25	**Indiana**	**7,504**		Virgin Islands	603
26	Mississippi	5,799		Residence Unknown	625
27	Oregon	5,599			
28	Nevada	5,237			

[3] Kaiser Family Foundation, *Cumulative Number of HIV/AIDS Cases, Reported Through December 2003*

Table 7: Cumulative Number of Reported AIDS Cases through December 2003, Selected Midwestern States and the U.S.[4]

Rank	State	HIV/AIDS Cases	Rate/100,000
31	Kentucky	4,192	101.8
14	Ohio	13,502	118.1
25	**Indiana**	**7,504**	**121.1**
17	Michigan	13,326	132.2
6	Illinois	30,139	238.2
	United States	902,223	310.2

In Table 7 the states were arranged in ascending order according to the rate/100,000 persons of their respective population. Rank refers to the ranking by absolute number of infected people among all states in the nation in Table 6. There are differences between the ranking by absolute numbers and by rates as shown. For example, Indiana has a lower rate (114.5/100,000) than Ohio (112/100,000), even though Ohio has more cases in absolute numbers. Compared to the nation as a whole, Indiana ranks in midfield by absolute numbers (25th in the nation).

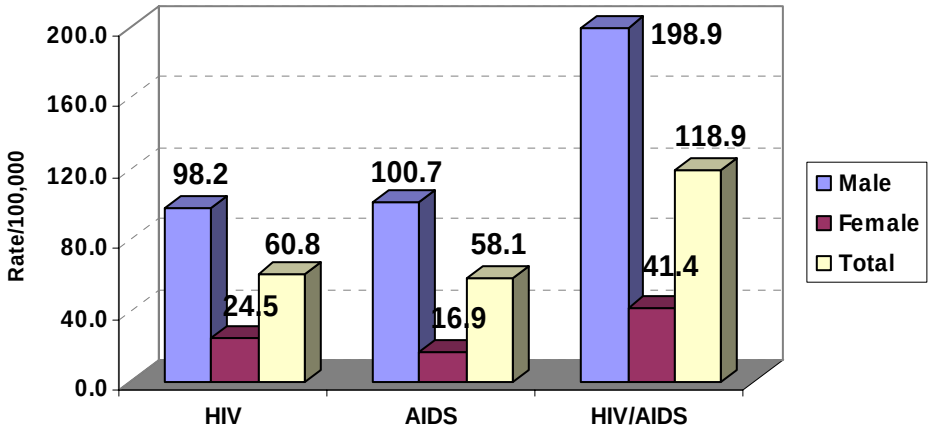
[4] Kaiser Family Foundation, *Cumulative Number of HIV/AIDS Cases, Reported Through December 2003*

Prevalence of HIV/AIDS in Indiana

Prevalence numbers describe the number of cases of a disease in a population up to a certain point in time. In the case of this report, Prevalence describes the number of persons diagnosed with HIV/AIDS in Indiana that were alive by December 31, 2003 and that were reported in the HIV/AIDS Surveillance Report.

The prevalence rate for HIV/AIDS in Indiana shows some significant details when breaking out the rate by gender, race/ethnicity or age. Figure 13 shows the HIV/AIDS rates by sex.

Figure 13: Prevalence Rates for HIV, AIDS, and HIV/AIDS by Sex, Indiana 2003



The rate of infected males per 100,000 people of the overall male population is at 198.9 persons, and it is almost 5 times larger than the prevalence rate of infected females. The female rate is at 41.4 persons per 100,000 females of the overall population. For HIV and AIDS separately, males are affected about four to six times more than females.

HIV/AIDS continues to affect more males than females. Table 8 breaks out the absolute numbers, percentages and rates by gender and disease status.

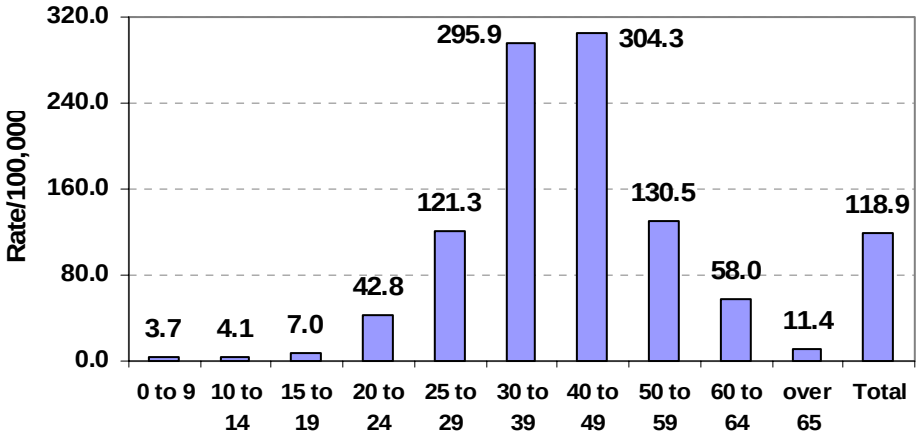
Table 8: Prevalence Numbers for HIV, AIDS, and HIV/AIDS by Sex, 2003

	HIV			AIDS			HIV/AIDS		
	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000	Number	%	Rate/ 100,000
Male	2,992	79.5	98.2	3,068	85.2	100.7	6,060	82.3	198.9
Female	772	20.5	24.5	533	14.8	16.9	1,305	17.7	41.4
Total	3,764	100.0	60.8	3,601	100.0	58.1	7,365	100.0	118.9

Prevalence of HIV/AIDS by Age

In order to better understand the dynamics at play with infected persons it is helpful to look at two different age definitions. One is the age of infected persons at the end of December 2003. The other is the age distribution for persons at the time of their infection. Figure 14 shows the age group distribution for infected persons that were alive at the end of 2003.

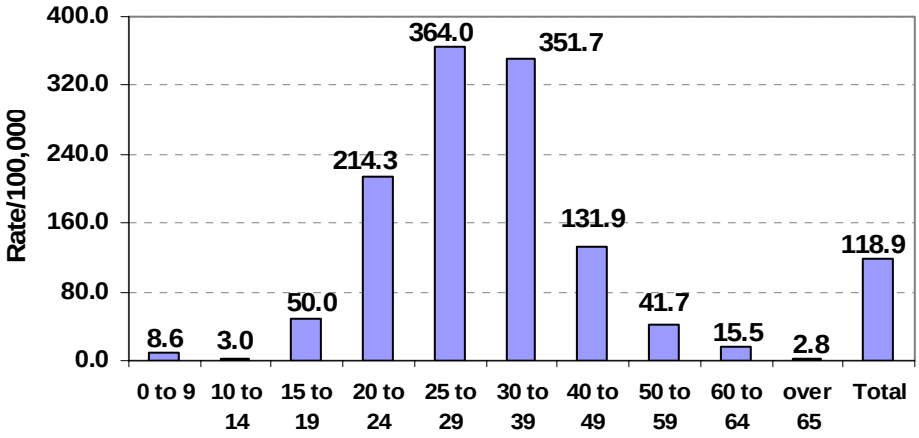
Figure 14: Prevalence Rate for HIV/AIDS by Age in December 2003



The majority of infected persons are in the groups of 30 to 39 years old and 40 to 49 years of age.

In comparison, Figure 15 shows the age group distribution by age at time of diagnosis.

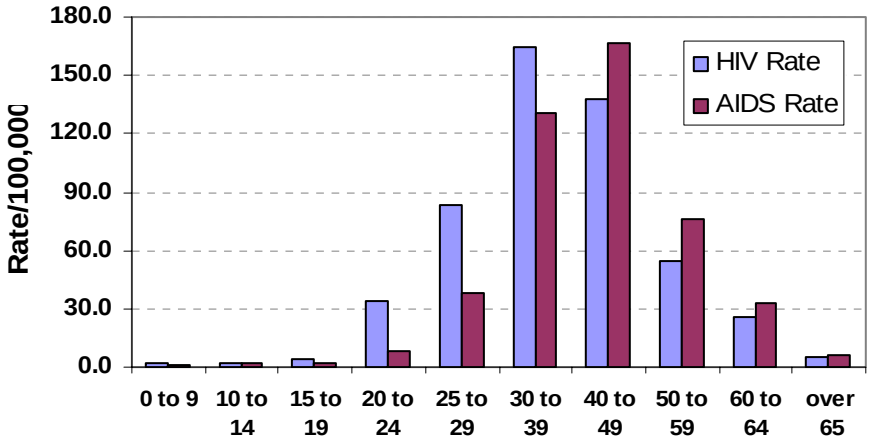
Figure 15: Prevalence Rate for HIV/AIDS by Age at Time of Diagnosis, 2003



It is interesting to note the difference in the age distribution between the two definitions. Whereas the majority of infected persons that were alive at the end of 2003 were in their thirties and forties, the majority of persons were diagnosed in their twenties and thirties. This is consistent with the age group distribution for the latest cases of infected and diagnosed persons as shown in Figure 14, where the majority of newly infected persons in 2003 were in their thirties. The reason for this discrepancy in the age distribution can be found in the availability and effectiveness of HIV/AIDS medications that have increased the long-term survival rate of infected persons. In other words, infected persons are living longer because of more effective medications and as a group those persons have moved from the age group of their initial diagnosis to their current age group at the end of 2003.

Similar to this finding is the breakout by HV and AIDS by age group. Figure 16 shows the corresponding distributions.

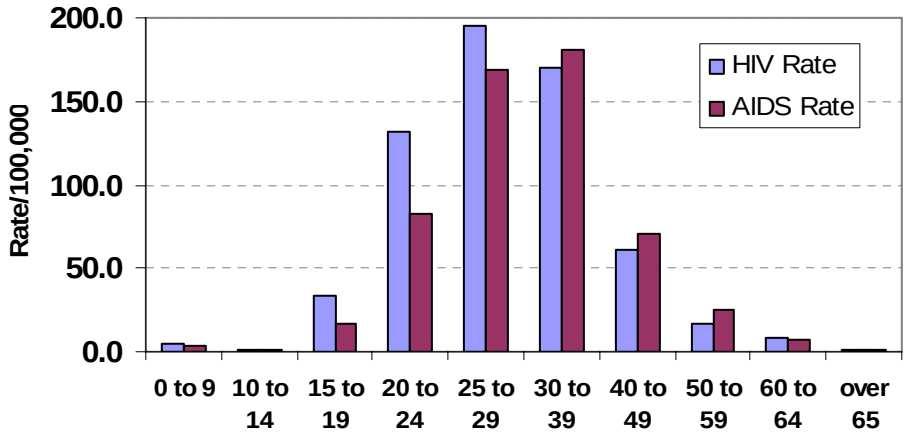
Figure 16: Prevalence Rate for HIV and AIDS by Age at End of Study, December 2003



The majority of infected persons are diagnosed with HIV first in their thirties. The majority of AIDS diagnosis occurs for the majority of diagnosed persons in their forties. The figure above gives a snapshot of the age distribution of the currently infected population. It shows that for the majority of cases a HIV diagnosis is given first, for a majority of persons at a younger age. Some of these HIV diagnosed persons develop AIDS as time passes, which shows up as a peak in the forties in Figure 16.

Figure 17 shows a very similar result for the age distribution by the time of diagnosis.

Figure 17: Prevalence Rate for HIV and AIDS by Age at Time of Diagnosis, 2003



The absolute numbers, percentages and rates for HIV, AIDS, and HIV/AIDS by age at end of study are presented in Table 9 and for age at time of diagnosis in Table 10.

Table 9: Prevalence Numbers for HIV, AIDS, and HIV/AIDS by Age at End of Study, December 2003

	HIV			AIDS			HIV/AIDS		
Age	**Number**	**%**	**Rate/ 100,000**	**Number**	**%**	**Rate/ 100,000**	**Number**	**%**	**Rate/ 100,000**
0 to 9	20	0.5	2.3	12	0.3	1.4	32	0.4	3.7
10 to 14	11	0.3	2.4	8	0.2	1.7	19	0.3	4.1
15 to 19	20	0.5	4.5	11	0.3	2.5	31	0.4	7.0
20 to 24	158	4.2	34.3	39	1.1	8.5	197	2.7	42.8
25 to 29	330	8.8	82.9	153	4.2	38.4	483	6.6	121.3
30 to 39	1,410	37.5	165.0	1,119	31.1	130.9	2,529	34.3	295.9
40 to 49	1,304	34.6	138.1	1,569	43.6	166.2	2,873	39.0	304.3
50 to 59	403	10.7	54.6	561	15.6	76.0	964	13.1	130.5
60 to 64	66	1.8	25.5	84	2.3	32.5	150	2.0	58.0
over 65	42	1.1	5.5	45	1.2	5.9	87	1.2	11.4
Total	3,764	100	60.8	3,601	100	58.1	7,365	100	118.9

*Note that 10-19 and 20-29 are split into two age groups.

Table 10: Prevalence Numbers for HIV, AIDS, and HIV/AIDS by Age at Time of Diagnosis, December 2003

	HIV			AIDS			HIV/AIDS		
Age	**Number**	**%**	**Rate/ 100,000**	**Number**	**%**	**Rate/ 100,000**	**Number**	**%**	**Rate/ 100,000**
0 to 9	41	1.1	4.7	34	0.9	3.9	75	1.0	8.6
10 to 14	7	0.2	1.5	7	0.2	1.5	14	0.2	3.0
15 to 19	149	4.0	33.7	72	2.0	16.3	221	3.0	50.0
20 to 24	606	16.1	131.7	380	10.6	82.6	986	13.4	214.3
25 to 29	779	20.7	195.7	670	18.6	168.3	1,449	19.7	364.0
30 to 39	1456	38.7	170.3	1,550	43.0	181.3	3,006	40.8	351.7
40 to 49	574	15.2	60.8	671	18.6	71.1	1,245	16.9	131.9
50 to 59	122	3.2	16.5	186	5.2	25.2	308	4.2	41.7
60 to 64	21	0.6	8.1	19	0.5	7.3	40	0.5	15.5
over 65	9	0.2	1.2	12	0.3	1.6	21	0.3	2.8
Total	3764	100	60.8	3,601	100	58.1	7,365	100	118.9

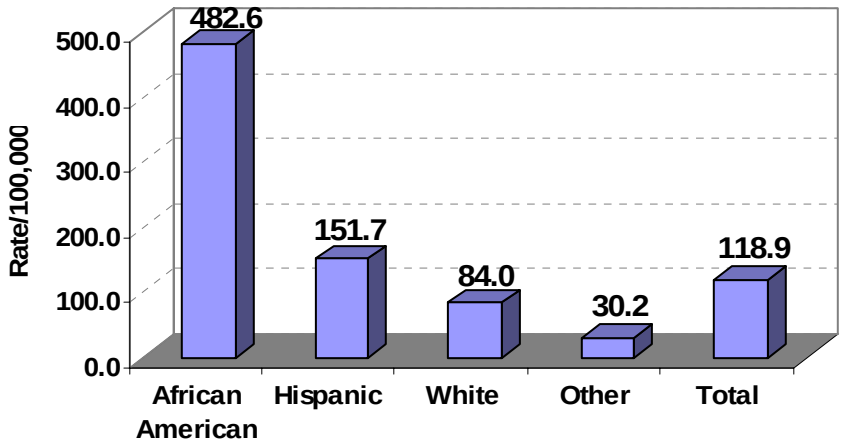
*Note that 10-19 and 20-29 are split into two age groups.

Prevalence of HIV/AIDS by Race/Ethnicity

So far, the majority of infections and diagnoses have been predominantly among males and the middle age range of 20 to 39 years of age. A look at the racial and ethnic make-up provides further details on the composition of the infected population.

The racial and ethnic composition of infected persons in Indiana varies to a great extent from the racial/ethnic distribution of the state's population. Indiana is overwhelmingly white and Non-Hispanic. Figure 18 shows the prevalence rate by race/ethnicity in 2003.

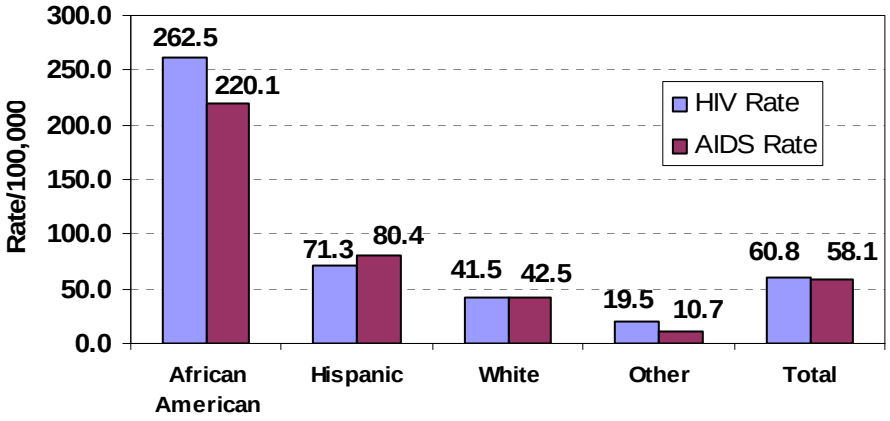
Figure 18: Prevalence Rates of HIV/AIDS by Race/Ethnicity in 2003



The overwhelming majority of infected cases are among Black/African Americans, even though that racial group accounts for only about 8.4% of the overall population. In other words, HIV/AIDS is overwhelming more prevalent among Black/African Americans than any other racial or ethnic group.

A separate view of HIV and AIDS reveals further details about racial and ethnic differences among the infected population.

Figure 19: Prevalence Rates of HIV and AIDS by Race/Ethnicity in 2003



Black/African Americans are leading in the rates of HIV infections and AIDS diagnosis. In contrast, the persons of Hispanic ethnicity have a slightly higher rate of AIDS diagnosis than of infected people with HIV. Table 11 lists the numbers, percentages and rates for HIV, AIDS, and HIV/AIDS by race/ethnicity.

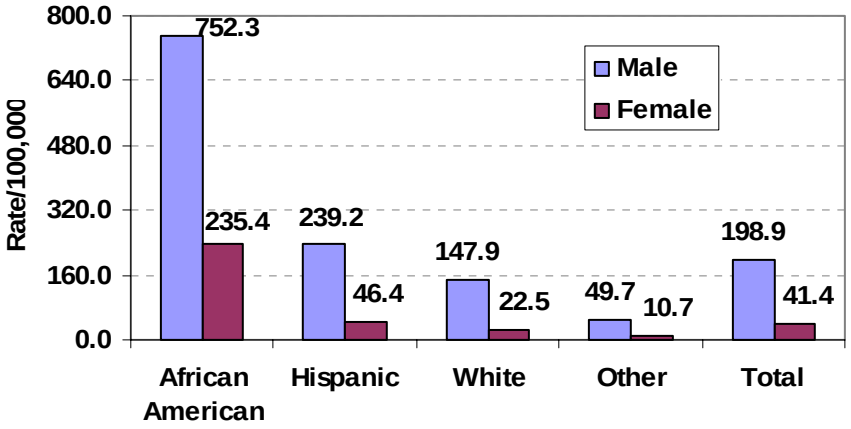
Table 11: Prevalence Rates of HIV, AIDS, and HIV/AIDS by Race/Ethnicity in 2003

	HIV			AIDS			HIV/AIDS		
Race/ Ethnicity	Number	%	Rate	Number	%	Rate	Number	%	Rate
African American	1,368	36.3	262.5	1,147	31.9	220.1	2,515	34.1	482.6
Hispanic	173	4.6	71.3	195	5.4	80.4	368	5.0	151.7
White	2,194	58.3	41.5	2,243	62.3	42.5	4,437	60.2	84.0
Other	29	0.8	19.5	16	0.4	10.7	45	0.6	30.2
Total	3,764	100.0	60.8	3,601	100.0	58.1	7,365	100.0	118.9

Prevalence of HIV/AIDS by Race/Ethnicity and Sex

Given the large differences between the racial and ethnic groups as well as the sex of infected and diagnosed clients, this profile will take a closer look at the distribution of race and ethnicity by sex.

Figure 20: Prevalence Numbers by Race/Ethnicity and Sex, 2003



The prevalence rates for males and females by racial/ethnic group confirm the earlier assessment. The rates are higher among male segments of the infected and diagnosed population. The rates for African-American males are five times the White male incidence rate (Figure 20). In absolute numbers African-American men are roughly half the number of their White counterparts.

Comparing the female prevalence rates among the racial/ethnic groups shows a similar picture. HIV/AIDS prevalence rates are lowest among White females. African American females have a rate more than ten times higher than their white counterparts. In absolute numbers among the female infected population almost half are African-American, while almost the same number is White. Table 12 shows the absolute numbers, percentages and rates per 100,000 by race/ethnicity and sex.

Table 12: Prevalence Numbers, Percentages and Rates of HIV/AIDS by Race/Ethnicity and Sex in 2003

Race/ Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
African American	1,875	30.9	752.3	640	49.0	235.4
Hispanic	317	5.2	239.2	51	3.9	46.4
White	3,831	63.2	147.9	606	46.4	22.5
Other	37	0.6	49.7	8	0.6	10.7
Total	6,060	100.0	198.9	1,305	100.0	41.4

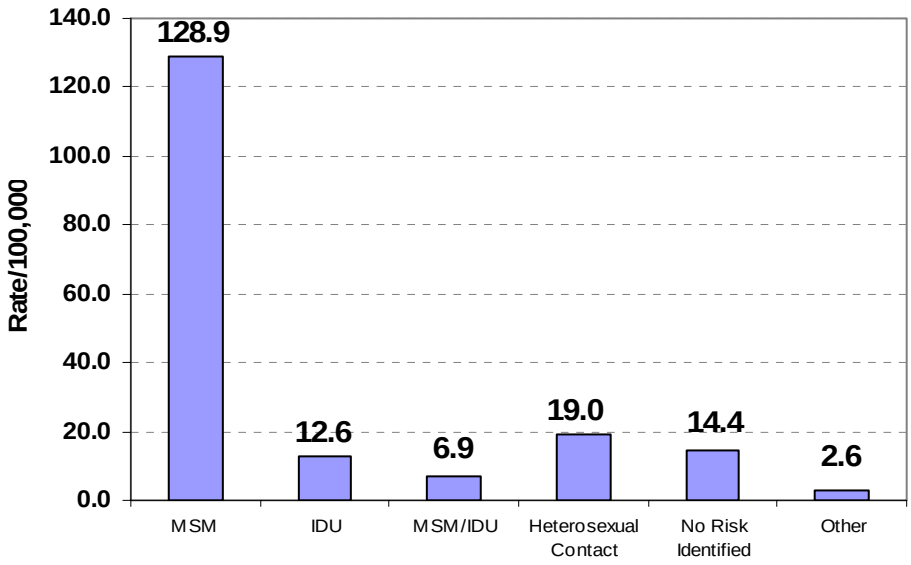
Prevalence of HIV/AIDS by Mode of Transmission

Modes of transmission of the virus were first classified and introduced by the Centers for Disease Control and Prevention (CDC). Those transmission categories are Men having Sex with Men (MSM), Injection Drug Users (IDU), Men having Sex with Men and Injection Drug Users (MSM/IDU), Heterosexual Contact and Other. The *Other* category was created to encompass risk categories such as hemophilia and coagulation disorders, transfusion of blood or blood components or tissue transplants, infected mothers, no reported risk mode of transmission, or other categories. Due to the small numbers of all those categories, they are grouped into one category.

During each test for HIV, a person reports information about his or her behavior and events which in turn allows for a risk category classification. In case a person falls into multiple risk categories, the priority follows the sequence of transmission modes as outlined above.

The differences between the transmission mode prevalence rates are considerable. The overwhelming majority of HIV transmissions occurred through Men having Sex with Men (MSM). The rate for MSM transmission is between 7 and 10 times larger than the other four categories. Figure 21 shows the prevalence rates for HIV/AIDS by mode of transmission.

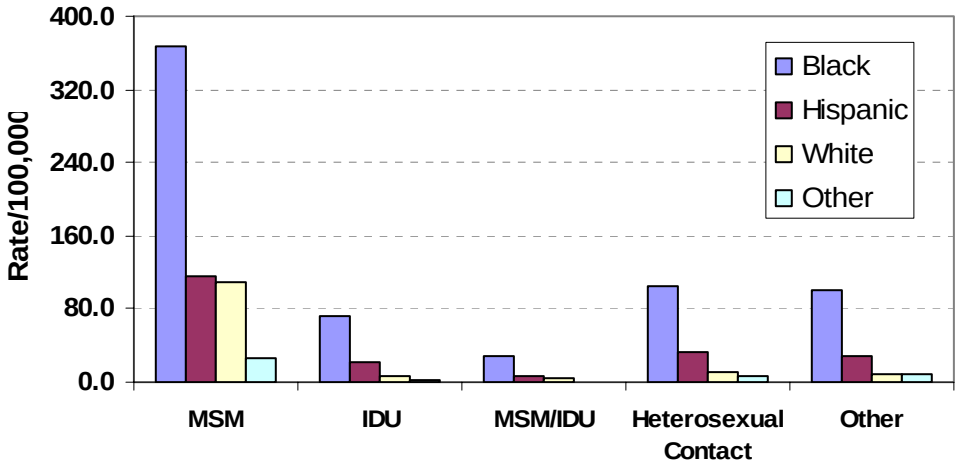
Figure 21: Prevalence Rates for HIV/AIDS by Mode of Transmission in 2003



In order to calculate the rate for each risk category it is important to know the population that it was based upon. For example, the rate for MSM was calculated by dividing the number of HIV/AIDS cases in Indiana by the number of all men living in Indiana at that time and by multiplying that by 100,000. The reason that only males were selected is that males alone are potential candidates to become infected through Men Having Sex with Men (MSM). The denominator for IDU was the entire population of Indiana, since IDU's can be of both sexes. The rate for MSM/IDU was again calculated with only the male population of Indiana, while Heterosexual Contact and Other included the entire population.

Figure 22 breaks out the prevalence rates for transmission modes by race and ethnicity. It will allow for a further understanding of what risk groups are particularly prominent in the various racial and ethnic groups.

Figure 22: Prevalence Rate for HIV/AIDS by Mode of Transmission and Race/Ethnicity



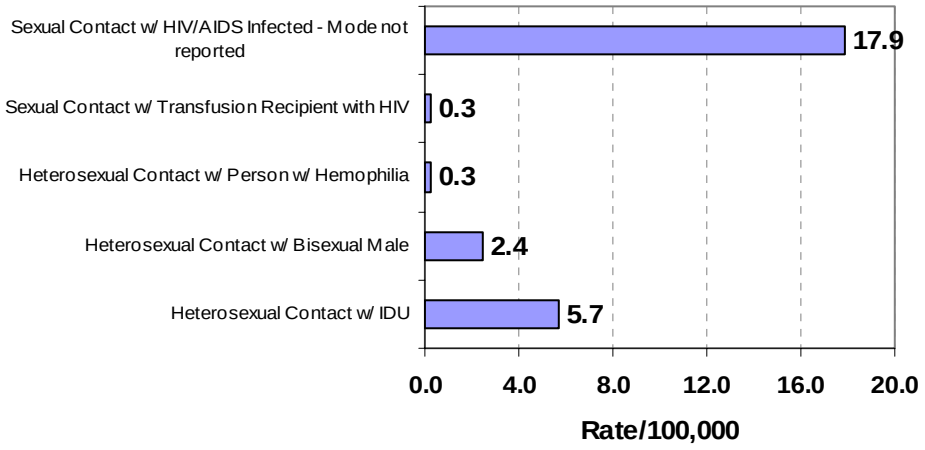
Consistent across all racial/ethnic categories, the highest HIV/AIDS prevalence rates are associated with MSM. The prevalence rate is especially high for Black/African American *MSM*, even though *Heterosexual Contacts* and *Other* risk factors register prominently for Black/African Americans as well. Table 13 lists the prevalence rates for all racial and ethnic groups.

Table 13: Prevalence Rates for HIV/AIDS by Mode of Transmission and by Race/Ethnicity in 2003

Mode of Transmission	Black		Hispanic		White		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
MSM	917	367.9	153	115.5	2,836	109.5	19	25.5
IDU	381	73.1	55	22.7	343	6.5	2	1.3
MSM/IDU	147	28.2	15	6.2	267	5.1	0	0.0
Heterosexual Contact	551	105.7	78	32.2	537	10.2	10	6.7
Other	519	99.6	67	27.6	454	8.6	13	8.7

The Heterosexual Contact risk group can be further broken down into subcategories. Figure 23 shows the prevalence numbers for HIV/AIDS, broken down by subcategories to the Heterosexual Contact category.

Figure 23: Prevalence Numbers for HIV/AIDS by Heterosexual Contact Categories



Within the risk category of Heterosexual Contact, the majority of cases (17.9 per 100,000) occur through sexual contact to persons infected with HIV/AIDS where the risk category of the sexual partner is not specifically reported. This risk category is more than three times as prevalent as the next category, Sexual Contact with an IDU at 5.7 per 100,000. Table 14 lists the components that are included into the category Heterosexual Contact as well as their absolute numbers, percentages and rates per 100,000.

Table 14: Prevalence Numbers, Percentages, and Rates for HIV/AIDS by Heterosexual Contact Categories

Mode of Transmission	Number	Percentage	Rate/100,000*
Heterosexual Contact w/ IDU	253	21.5	5.7
Heterosexual Contact w/ Bisexual Male	108	9.2	2.4
Heterosexual Contact w/ Person w/ Hemophilia	12	1.0	0.3
Sexual Contact w/ Transfusion Recipient with HIV	12	1.0	0.3
Sexual Contact w/ HIV/AIDS Infected - Mode not reported	791	67.3	17.9
Total	**1,176**	**100.0**	**26.6**

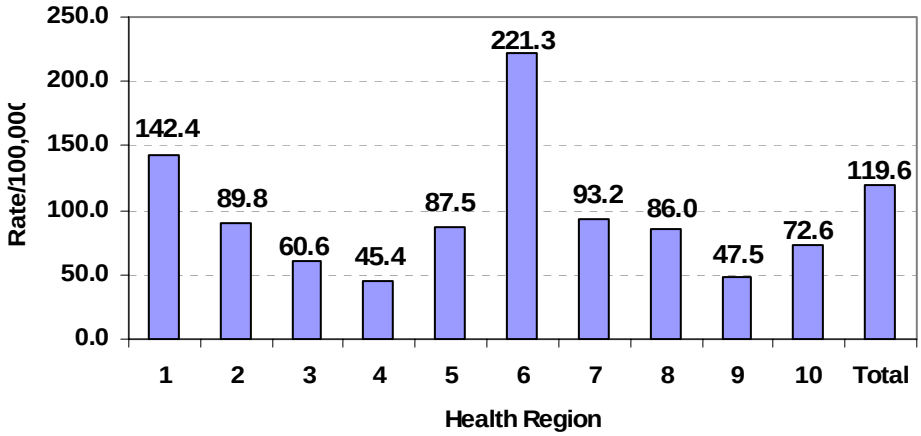
* Rates were calculated based on the adult population 20 years and older

Prevalence of HIV/AIDS by Health Regions

So far this profile has found that HIV/AIDS is most prevalent among minority men, mainly African-American in their thirties and forties, whose main risk category is MSM. A look at the regional distribution of the infected population will provide further insight.

Figure 24 shows the prevalence rates per 100,000 people of the population of HIV/AIDS by Indiana's Health Regions. The rates per Health Region were calculated using the population estimates in Table 5 for 2003.

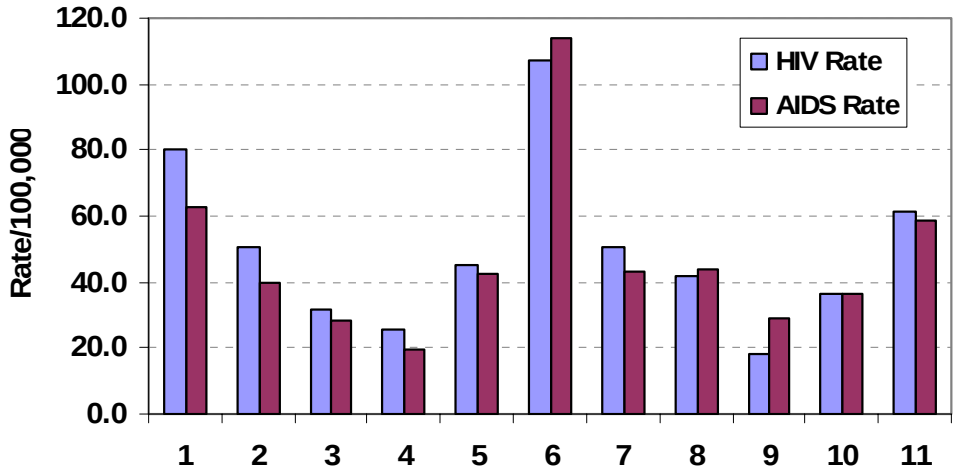
Figure 24: Prevalence Rate for HIV/AIDS by Health Region, 2003



Indiana shows very distinct regional differences in its prevalence rate for HIV/AIDS. Health Region 6, which covers Indianapolis and the surrounding counties, shows the highest prevalence rate of the entire state, with a rate of 221.3 per 100,000 persons. The second highest rate is in Region 1 which includes Lake, Porter and La Porte Counties in northern Indiana, with a rate of 142.4/100,000 people. Similar to the Indianapolis metro area, the proximity of Chicago strongly influences the number of infected persons. The next highest prevalence rates are all associated with Indiana's larger cities, such as Evansville and Terre Haute in Region 7, Kokomo and Muncie/Anderson in Region 5, and Bloomington in south-central Indiana in Region 8.

Figure 25 breaks out the prevalence rate by HIV and AIDS separately for each Health Region. Most of the Health Regions show no large differences between their HIV and AIDS prevalence rates.

Figure 25: Prevalence for HIV and AIDS by Health Region, 2003



The corresponding rates for HIV and AIDS by Health Region are listed in Table 15.

Table 15: Prevalence Numbers, Percentages and Rates for HIV and AIDS by Health Region, 2003

	HIV			AIDS			HIV/AIDS		
Region	Number	%	Rate	Number	%	Rate	Number	%	Rate
1	598	15.9	80.0	467	13.0	62.4	1,065	14.5	142.4
2	280	7.4	50.3	220	6.1	39.5	500	6.8	89.8
3	235	6.2	32.0	210	5.8	28.6	445	6.0	60.6
4	90	2.4	25.7	69	1.9	19.7	159	2.2	45.4
5	253	6.7	44.9	240	6.7	42.6	493	6.7	87.5
6	1,635	43.4	107.4	1,736	48.2	114.0	3,371	45.8	221.3
7	358	9.5	50.3	306	8.5	43.0	664	9.0	93.2
8	116	3.1	41.9	122	3.4	44.1	238	3.2	86.0
9	54	1.4	18.2	87	2.4	29.3	141	1.9	47.5
10	145	3.9	36.4	144	4.0	36.2	289	3.9	72.6
Total	3,764	100.0	61.1	3,601	100.0	58.5	7,365	100.0	119.6

Please note that in order to calculate the rate for each region, the number of HIV positive and AIDS diagnosed persons is divided by the total number of people living in each region and multiplied by 100,000.

Prevalence of HIV/AIDS by Current State of Residence

At the time of this report, the vast majority of infected persons that are eligible for the programs and services provided by ISDH also reside in the state. Some of the infected persons that had been diagnosed with HIV/AIDS in Indiana have either moved out of the state since their diagnosis, or they lived outside the state of Indiana and were only diagnosed here. Table 16 lists, in descending order, the states of residence of infected persons.

Table 16: Number of Infected Persons (HIV/AIDS) by State of Residence at the Time of this Report

State of Residence	Number of Infected	State of Residence	Number of Infected
Indiana	7,202	Missouri	2
Illinois	21	North Dakota	2
Florida	15	Nevada	2
Kentucky	13	New York	2
Michigan	11	Rhode Island	2
Tennessee	11	South Carolina	2
Georgia	7	Virginia	2
Wisconsin	7	Washington, DC	1
Ohio	6	Kansas	1
Texas	6	Louisiana	1
Arizona	4	Maryland	1
California	4	North Carolina	1
Alabama	3	Nebraska	1
Colorado	3	New Jersey	1
Iowa	3	Oklahoma	1
Minnesota	3	Utah	1
New Mexico	3		
Pennsylvania	3	**Total**	**7,353**
Washington	3		
Foreign Country	2		

The total number of infected people only adds up to 7,353 persons because the database does not contain a current state of residence for every infected person. Two clients did reside outside the U.S. at the time of this report.

Of the total number of infected persons that lived in Indiana in 2003 most resided in Marion County. Table 17 lists the number of infected persons by Indiana counties, ranked in descending order.

Table 17: Number of Infected Persons with HIV/AIDS by Indiana County of Residence at Time of Report

County of Residence	Number of Infected	Percent	County of Residence	Number of Infected	Percent
Marion	2,956	40.2%	Jasper	13	0.2%
Lake	836	11.4%	Steuben	13	0.2%
St. Joseph	361	4.9%	Wabash	13	0.2%
Allen	347	4.7%	Clay	12	0.2%
Vigo	233	3.2%	Daviess	12	0.2%
Vanderburgh	219	3.0%	Dearborn	12	0.2%
Madison	169	2.3%	Randolph	12	0.2%
Monroe	169	2.3%	Washington	12	0.2%
La Porte	162	2.2%	Clinton	11	0.1%
Clark	120	1.6%	Dubois	11	0.1%
Elkhart	119	1.6%	Greene	11	0.1%
Delaware	110	1.5%	Noble	11	0.1%
Hamilton	93	1.3%	Adams	10	0.1%
Porter	93	1.3%	Brown	10	0.1%
Hendricks	88	1.2%	Huntington	10	0.1%
Tippecanoe	81	1.1%	Sullivan	10	0.1%
Johnson	79	1.1%	Lagrange	9	0.1%
Howard	77	1.0%	Posey	9	0.1%
Floyd	76	1.0%	Parke	8	0.1%
Wayne	75	1.0%	Blackford	7	0.1%
Grant	51	0.7%	Spencer	7	0.1%
Bartholomew	47	0.6%	Vermillion	7	0.1%
Putnam	40	0.5%	Decatur	6	0.1%
Knox	36	0.5%	Fulton	6	0.1%
Morgan	35	0.5%	Jennings	6	0.1%
Cass	26	0.4%	Benton	5	0.1%
Boone	25	0.3%	Fayette	5	0.1%
Kosciusko	25	0.3%	Perry	5	0.1%
Montgomery	22	0.3%	Whitley	5	0.1%
Shelby	22	0.3%	Martin	4	0.1%
Warrick	21	0.3%	Ripley	4	0.1%
Henry	19	0.3%	Rush	4	0.1%
Lawrence	19	0.3%	Wells	4	0.1%
Miami	19	0.3%	Fountain	3	0.0%
Hancock	18	0.2%	Newton	3	0.0%
Jackson	18	0.2%	Orange	3	0.0%
Gibson	16	0.2%	Pike	3	0.0%
Jefferson	16	0.2%	Switzerland	3	0.0%
Marshall	15	0.2%	Warren	3	0.0%
Owen	15	0.2%	Carroll	2	0.0%
Scott	15	0.2%	Pulaski	2	0.0%
Harrison	14	0.2%	Tipton	2	0.0%
Jay	14	0.2%	Crawford	1	0.0%
Starke	14	0.2%	Ohio	1	0.0%
White	14	0.2%	Union	1	0.0%
De Kalb	13	0.2%	Franklin	0	0.0%
Total	**7,365**	**100.0%**			

The authors would like to point out that there is a difference between the total number of infected persons for Indiana in Table 16 (7,202) and in Table 17 (7,365). Based on the available information it is not possible to determine in which state the 163 “missing” persons in Table 16 were residing by the end of 2003. Considering the very dynamic and fluid nature of the data in the HIV/AIDS Surveillance Report the “missing” cases are likely to be assigned to a state of residence in an updated version of the database. Given the total number of infected persons in Indiana the missing cases would account for a maximum error of about 2%.

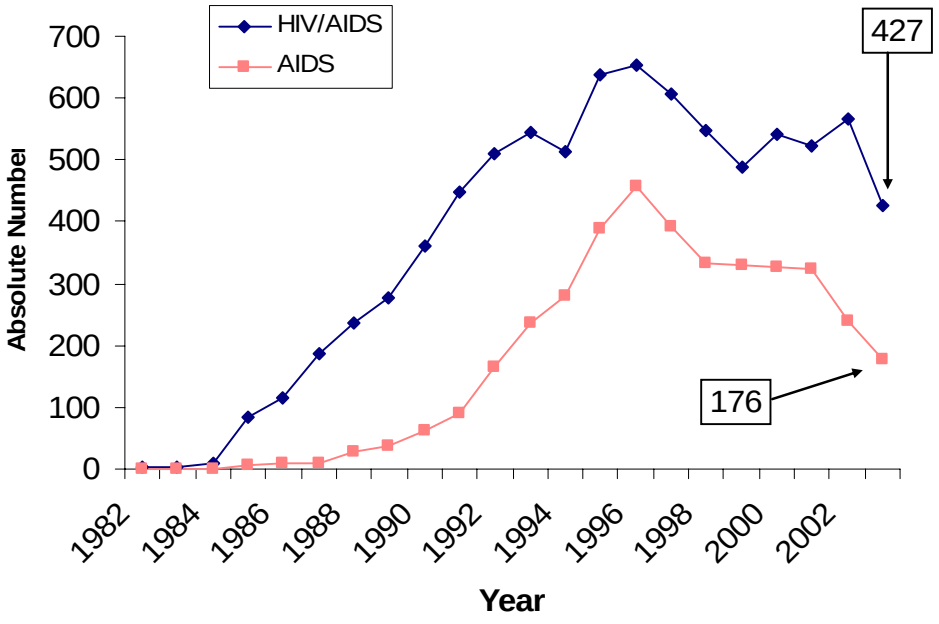
Incidence of HIV/AIDS in Indiana

Incidence numbers describe the number of new cases of a disease in a population in a certain amount of time, usually a year. In the case of this report, Incidence describes the number of new cases of HIV/AIDS that were diagnosed in Indiana between January 1, 2003 and December 31, 2003 and that were reported in the HIV/AIDS Surveillance Report.

Incidence Rates for Indiana 2003

Indiana started collecting data on HIV and AIDS infections in 1982. Figure 26 shows the numbers of the first documented positive HIV tests or detectable viral loads for all persons, as well as the first documented dates at which a person was diagnosed as having developed AIDS. Figure 26 shows the trends for HIV/AIDS and AIDS for the past two decades up until the end of 2003.

Figure 26: Incidence Numbers of Reported Cases of HIV/AIDS and AIDS for Indiana, 1982 to 2003



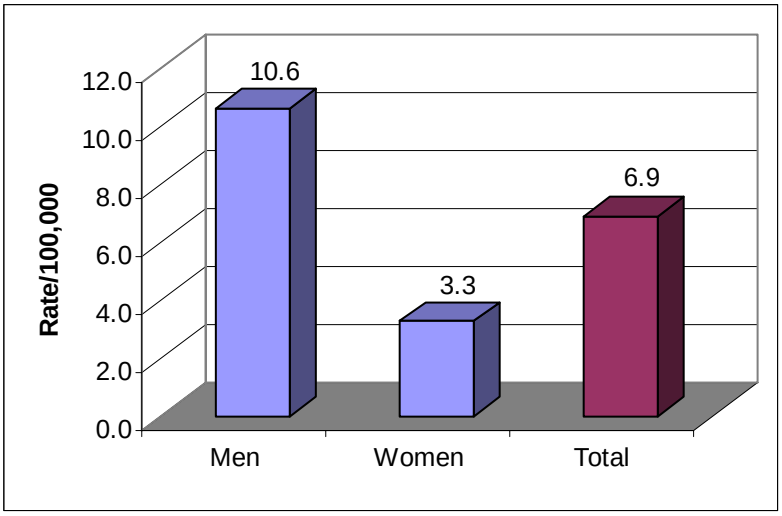
In the first decade after the recording of the infected and diagnosed persons in Indiana began in 1982, the numbers steadily climbed, until they reached a peak in 1996. At that point, the availability and effectiveness of anti-viral drugs, that, at least temporarily, slowed the progression from HIV infection to full AIDS, as well as educational campaigns to stop the spread of the virus brought the rise in the number of infected

persons to a halt and in fact reversed them for the next four to five years. Beginning in or around the year 2000 however, the number of new HIV infections and AIDS diagnoses started to slowly climb again. Those drugs, in part, had dramatic effects after their introduction, are loosing their effectiveness against ever increasingly resistant strains of the virus. In addition, the behavior of persons at risk is changing, and a kind of complacency is starting to take hold. HIV/AIDS is seen as a "manageable" disease in the eyes of many, especially younger persons.

In 2003, the number of newly diagnosed persons with HIV/AIDS was 427, which equates to an overall incidence rate of 6.9 infected persons per 100,000 people of the state's population.

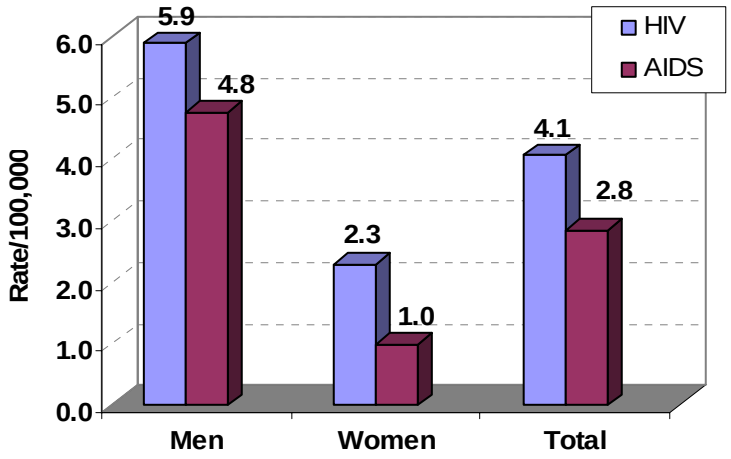
Similar to the overall current infected population, the newly infected persons are predominantly male.

Figure 27: New Infection (Incidence) Rate for HIV/AIDS by Sex, 2003



Males have a more than three time higher new infection rate than females.
A more detailed look at the incidence rates for HIV and AIDS separately is provided in Figure 28, which shows the difference in incidence rates by sex for HIV and AIDS separately.

Figure 28: Incidence Rate for HIV and AIDS by Sex, 2003



There are no real differences between rates for HIV and AIDS for either men (5.9 and 4.8, respectively) or women (2.3 and 1.0, respectively).

Table 18 lists the absolute numbers for HIV, AIDS and HIV/AIDS incidence in Indiana for 2003.

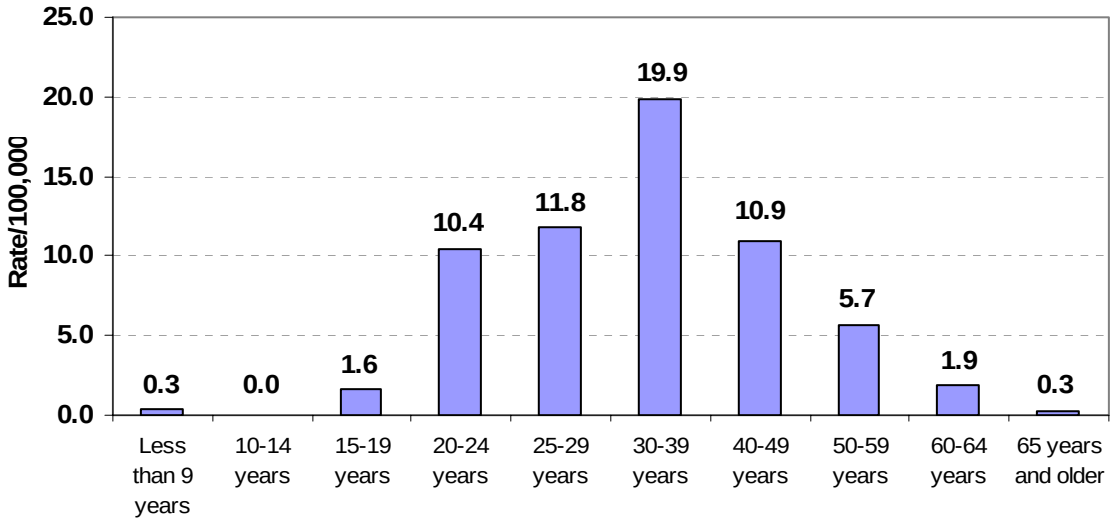
Table 18: Incidence Numbers, Percentages and Rates for HIV, AIDS, and HIV/AIDS by Sex, 2003

	HIV			AIDS			HIV/AIDS		
Sex	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**	**Number**	**%**	**Rate**
Male	179	71.3	10.6	145	82.4	4.8	324	75.9	10.6
Female	72	28.7	3.3	31	17.6	1.0	103	24.1	3.3
Total	251	100.0	6.9	176	100.0	2.8	427	100.0	6.9

Incidence of HIV/AIDS by Age

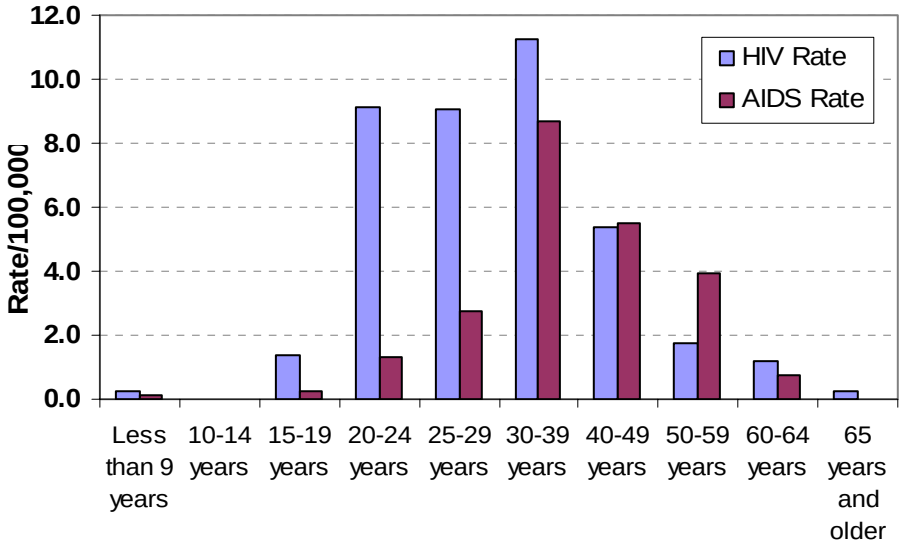
The incidence rate of HIV/AIDS by age category shows a slightly different pattern to the prevalence rate (Figure 29) of HIV/AIDS by age at time of diagnosis. The highest rate of new infections in 2003 occurred for those 30 to 39 years (19.9 per 100,000), and the second highest rate of new infections in 2003 occurred for those 25 to 29 years (11.8 per 100,000). The prevalence rate at the time of diagnosis for the overall infected population has the highest rate for the age group of 25 to 29 year olds.

Figure 29: Incidence Rate for HIV/AIDS by Age, 2003



The incidence rate for the combined disease masks important differences between the separate rates for HIV and AIDS. Figure 28 separates the HIV and AIDS incidence rates by age.

Figure 30: Incidence Rate for HIV and AIDS by Age, 2003



As expected, the rate of persons newly infected with HIV is higher than that of AIDS rates for mostly the younger age groups. This pattern is particularly true for those aged 20 to 29 years. In contrast, the reverse pattern is shown for new cases among 50 to 59 year olds. The rates of newly diagnosed cases are relatively equal for the age groups of 20 to 30 and 30 to 40 years of age. The number of AIDS diagnosis peak at an older age than HIV diagnosis. Table 19 shows the absolute numbers, percentages and rates for the combined disease as well as the separate diagnosis for 2003.

Table 19: Incidence Numbers, Percentages and Rates for HIV, AIDS, and HIV/AIDS by Age, 2003

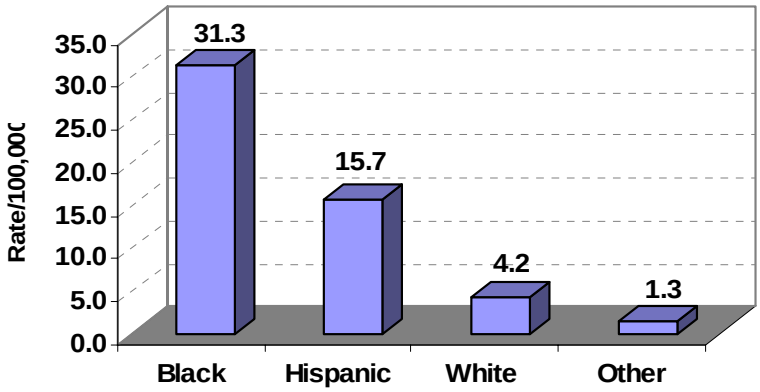
	HIV			AIDS			HIV/AIDS		
Age	**Number**	**%**	**Rate/ 100,000**	**Number**	**%**	**Rate/ 100,000**	**Number**	**%**	**Rate/ 100,000**
0 to 9	2	0.8	0.2	1	0.6	0.1	3	0.7	0.3
10 to 14	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
15 to 19	6	2.4	1.4	1	0.6	0.2	7	1.6	1.6
20 to 24	42	16.7	9.1	6	3.4	1.3	48	11.2	10.4
25 to 29	36	14.3	9.0	11	6.3	2.8	47	11.0	11.8
30 to 39	96	38.2	11.2	74	42.0	8.7	170	39.8	19.9
40 to 49	51	20.3	5.4	52	29.5	5.5	103	24.1	10.9
50 to 59	13	5.2	1.8	29	16.5	3.9	42	9.8	5.7
60 to 64	3	1.2	1.2	2	1.1	0.8	5	1.2	1.9
over 65	2	0.8	0.3	0	0.0	0.0	2	0.5	0.3
Total	251	100	4.1	176	100	2.8	427	100	6.9

Incidence Rate of HIV/AIDS by Race/Ethnicity

So far, the number of new infections and new diagnoses has been predominantly among males and the middle age range of 20 to 39 years of age. A look at the racial and ethnic make-up provides further details on the composition of the infected group.

In Figure 31 the incidence rates are shown by race and ethnicity. In order to calculate the rate per 100,000 persons, the number of infected and diagnosed persons for each race and ethnicity was divided by the number of the entire Indiana population that were identified in the Census 2003 estimates as belonging to that particular racial and ethnic category.

Figure 31: Incidence Rate of HIV/AIDS by Race/Ethnicity, 2003



The overwhelming majority of newly infected and diagnosed persons were Black/African American. They had an incidence rate of 31.3 per 100,000 people of the population, twice as large as the next largest group of Hispanics (15.7 per 100,000). It is interesting to note that Black/African Americans only make up a minority of the general population of 8.4%, yet they account for almost 40% of all new cases of HIV/AIDS in 2003.

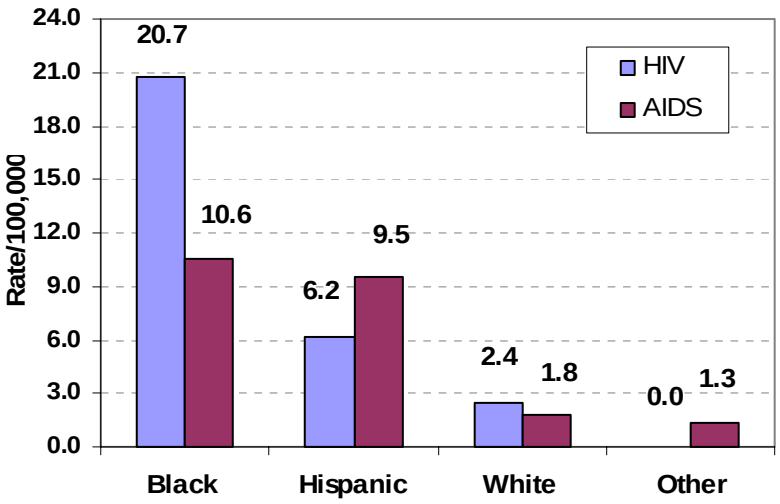
The incidence numbers for HIV/AIDS for absolute numbers, percentages and rates per 100,000 are listed in Table 20.

Table 20: Incidence Numbers for HIV/AIDS by Race/Ethnicity, 2003

	Number	Rate	Percent
Black	163	31.3	38.2
Hispanic	38	15.7	8.9
White	224	4.2	52.5
Other	2	1.3	0.5
Total	**427**	**6.9**	**100.0**

The absolute numbers for the combined disease as well as the percentage numbers show that all Black/African-American and Hispanic groups are overrepresented in the number of newly infected and diagnosed persons, when compared to their part of the overall population.

Figure 32: Incidence Rate for HIV and AIDS by Race/Ethnicity, 2003



The separate view of HIV and AIDS by race and ethnicity reveals further information about the different behavior of new infections and diagnoses. Displayed in Figure XX are the new HIV infections and newly diagnosed cases of AIDS by race and ethnicity. Black/African Americans are leading in the rate of new HIV infections as well as new AIDS diagnosis. In contrast, the persons of Hispanic ethnicity have an over 50% higher rate of new AIDS diagnosis than of newly infected people with HIV.

In other words, both Figure 31 and Figure 32 show that HIV and AIDS are spreading more rapidly among minority groups than among Whites, a finding that is consistent with the status of the prevalence ratings. However, by absolute numbers, the new infections and diagnosis for Whites outnumber all other racial and ethnic groups.

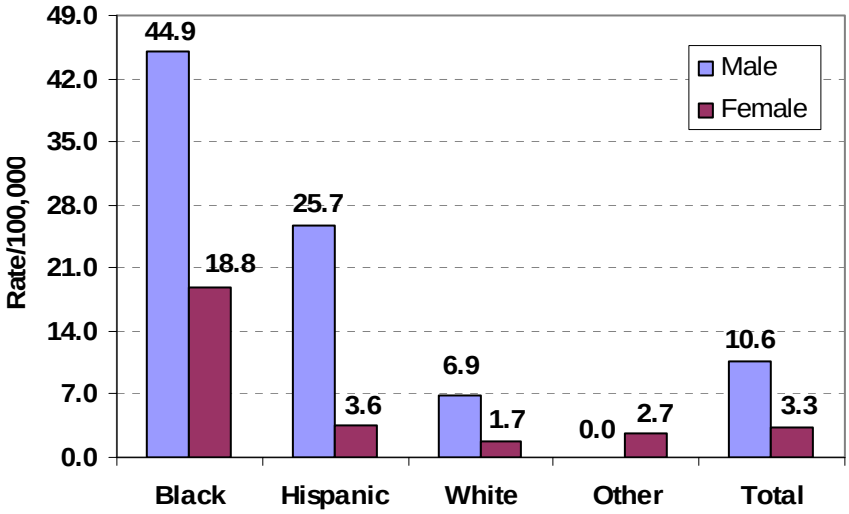
Table 21 lists the absolute numbers of newly infected and diagnosed persons by race/ethnicity, as well as the percentage of the overall infections and the rates per 100,000 people of the population.

Table 21: Incidence Numbers for HIV and AIDS by Race/Ethnicity, 2003

Race/ Ethnicity	HIV			AIDS		
	Total	Rate	Percent	Total	Rate	Percent
Black	108	20.7	43.0	55	10.6	31.3
Hispanic	15	6.2	6.0	23	9.5	13.1
White	128	2.4	51.0	96	1.8	54.5
Other	0	0.0	0.0	2	1.3	1.1
Total	**251**	**4.1**	**100**	**176**	**2.8**	**100.0**

Given the large differences between the racial and ethnic groups as well as the sex of newly infected and diagnosed clients, this profile will take a closer look at the distribution of race and ethnicity by sex.

Figure 33: Incidence Rates for HIV/AIDS by Race/Ethnicity and Sex, 2003



The incidence rates for males and females by racial/ethnic group confirm the earlier assessment. The new infections and diagnosis rates are higher among male segments of new cases. The rates for African-American and Hispanic males are three to six times the White male incidence rate (see Figure 33).

Comparing the female incidence rates among these racial/ethnic groups shows a similar picture. HIV/AIDS incidence rates are lowest among White females and highest among African-American females. In absolute numbers African-American females make up the majority of new infections of both HIV and AIDS. Table 22 shows the absolute numbers as well as incidence rates per 100,000 by race and ethnicity and by sex for the combined disease.

Table 22: Incidence Numbers, Rates and Percents for HIV/AIDS by Race/Ethnicity and Sex, 2003

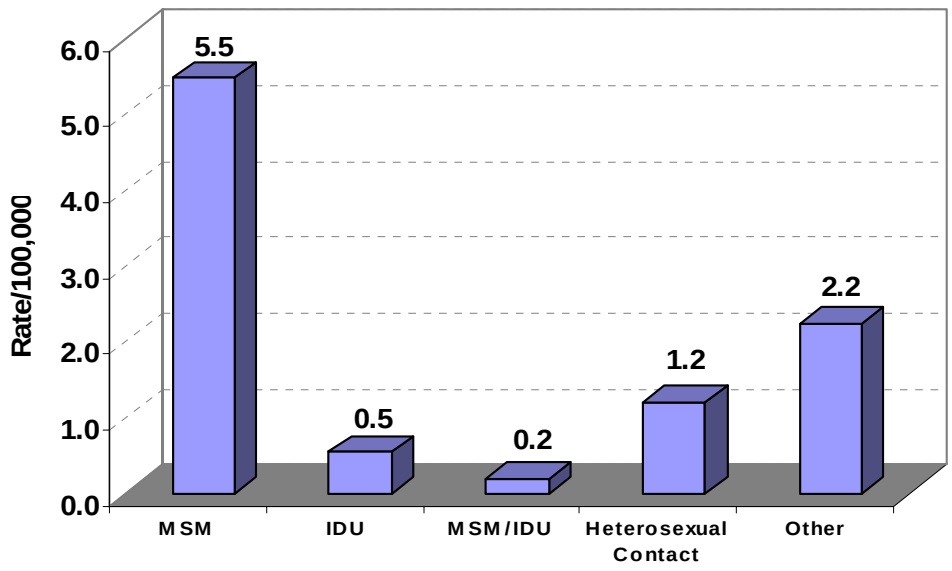
Race/ Ethnicity	Male			Female		
	Total	Rate	Percent	Total	Rate	Percent
Black	112	44.9	34.6	51	18.8	49.5
Hispanic	34	25.7	10.5	4	3.6	3.9
White	178	6.9	54.9	46	1.7	44.7
Other	0	0.0	0.0	2	2.7	1.9
Total	324	10.6	100.0	103	3.3	100.0

These rates were calculated by dividing the absolute number of new cases of HIV/AIDS by the number of the racial and ethnic male or female population respectively and multiplying that number by 100,000. The reduction of the absolute numbers to the rates per 100,000 allows for direct comparison of rates between the different racial and ethnic groups as well as between the gender categories.

Incidence of HIV/AIDS by Mode of Transmission

The incidence rates of HIV/AIDS vary widely by mode of transmission for 2003, as shown in Figure 34.

Figure 34: Incidence Rates for HIV/AIDS by Mode of Transmission, 2003



Note: For categories MSM and MSM/IDU, rates are relative to the number of men.

The majority of new cases registered in the category of Men having Sexual Contact with Men (MSM). The incidence rate of 5.5 per 100,000 is more than twice that of the next closest category, *Other*, with a rate of 2.2 per 100,000.

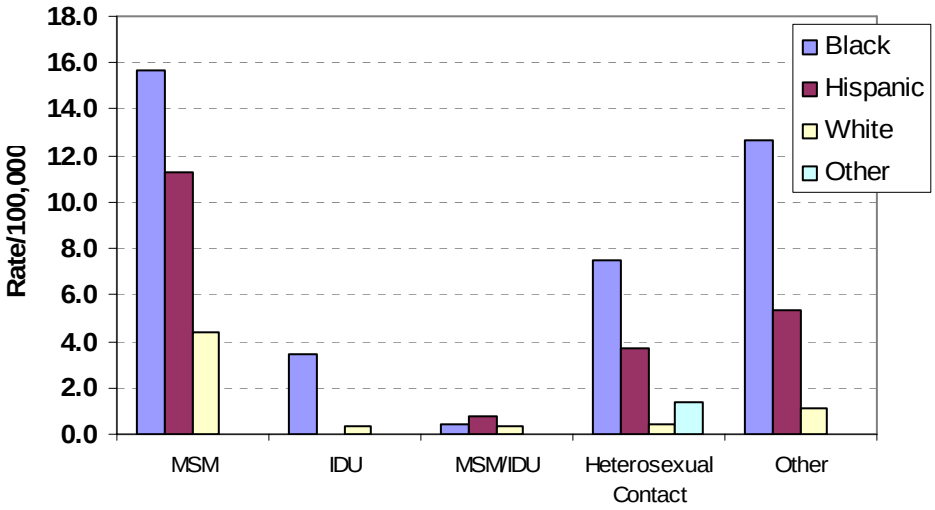
In absolute numbers, the most new cases of HIV are transmitted by MSM. Table 23 shows the absolute numbers, their respective percentages and the rates per 100,000 people for HIV/AIDS by mode of transmission.

Table 23: Incidence Number, Percent, and Rates per 100,000 for HIV/AIDS by Mode of Transmission, 2003

Transmission Mode	Total	Rate	Percent
MSM	167	5.5	39.1
IDU	34	0.5	8.0
MSM/ IDU	12	0.2	2.8
Heterosexual Contact	75	1.2	17.6
Other	139	2.2	32.6
Total	427	6.9	100.0

In order to give more detail, HIV/AIDS incidence rates are computed separately by race/ethnicity categories and mode of transmission.

Figure 35: Incidence Rate of HIV/AIDS by Mode of Transmission and Race/Ethnicity, 2003



Consistent across all race/ethnic categories, the highest HIV/AIDS incidence rates are associated with *MSM*. For nearly all race/ethnic categories, the *Other* risk category accounts for the second highest HIV/AIDS incidence rates. The reason that *Other*

category is so prominent in the Figure 35, when it is designed as a collection of less numerous risk categories is a result of the large number of *Unknown* risk categories for many newly diagnosed cases. The incidence numbers and rates per 100,000 for all racial and ethnic groups by mode of transmission are listed in Table 24.

Table 24: Incidence Numbers for HIV/AIDS by Race/Ethnicity and Mode of Transmission, 2003

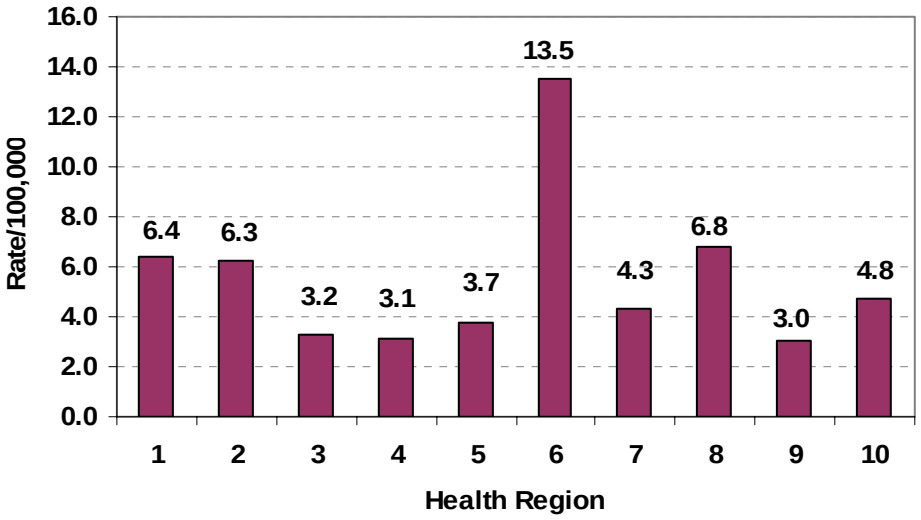
	Black		Hispanic		White		Other	
Transmission Mode	Number	Rate	Number	Rate	Number	Rate	Number	Rate
MSM	39	15.6	15	11.3	113	4.4	0	0
IDU	18	3.5	0	0	16	0.3	0	0
MSM/IDU	1	0.4	1	0.8	10	0.4	0	0
Heterosexual Contact	39	7.5	9	3.7	25	0.5	2	1.3
Other	66	12.7	13	5.4	60	1.1	0	0
Total	163	31.3	38	15.7	224	4.2	2	1.3

In order to calculate the rate/100,000 people of the general population, the absolute number of people per risk category was divided by the number of the corresponding general population. However, the rate for MSM and MSM/IDU was calculated using the corresponding number of males of that particular racial and ethnic group.

Incidence Rate for HIV/AIDS by Health Regions and Counties

The geographic distribution of the number of newly infected and diagnosed persons shows regional differences, corresponding to population size and proximity to large urban centers. Figure 36 shows the incidence rates for all ten Indiana Health Regions.

Figure 36: Incidence Rate by Health Region in Indiana, 2003



Note: One individual was missing information on Health Region

Region 6, which corresponds to the Greater Indianapolis area, shows the largest increase in the number of newly infected people. Their rate of 13.5 persons per 100,000 people of the population is almost twice the rate of the next closest regions (1, 2, and 8), which correspond to the areas around Gary, South Bend and Bloomington respectively.

The regions with the lowest incidence rates, regions 3, 4 and 9, correspond to largely rural areas of the state, with few larger towns or cities. Even though Region 4 contains the cities of Lafayette and West Lafayette, the region is large enough and rural enough to counterbalance the two cities influence overall. Table 25 lists the numbers, rates and percentages for HIV/AIDS by Health Region.

Table 25: Incidence Numbers, Rates and Percentages for HIV/AIDS by Health Region, 2003

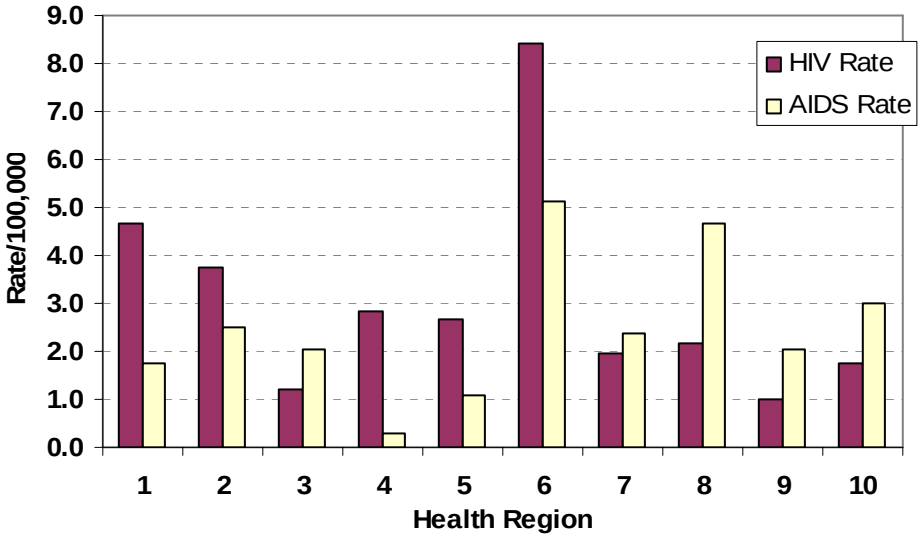
Health Region	HIV/AIDS		
	Total	**Rate**	**Percent**
1	48	6.4	11.3
2	35	6.3	8.2
3	24	3.2	5.6
4	11	3.1	2.6
5	21	3.7	4.9
6	209	13.5	49.1
7	31	4.3	7.3
8	19	6.8	4.5
9	9	3.0	2.1
10	19	4.8	4.5
Total	**426**	**6.9**	**100.0**

Note: One individual was missing information on Health Region

The total number of HIV/AIDS cases does not add up to the number of all new cases, because not every person newly tested or diagnosed had a residence in the state, but may live in Indiana currently. There were 24 cases that had a residence outside of Indiana in the previous year. One case did not have a county of residence listed in the database, and could therefore not be associated with one of the 10 Health Regions.

Apart from the numbers for the combined disease, the numbers for HIV and AIDS separately reveal more interesting facts. The corresponding incidence rates per 100,000 for each Health Region are displayed in the following Figure 37.

Figure 37: Incidence Rates for HIV and AIDS by Health Region, 2003



Note: One individual was missing information on Health Region

Consistent with the combined disease the majority of newly diagnosed cases of HIV and AIDS occur in region 6, the greater Indianapolis area. It is interesting to note though that the rate of newly diagnosed AIDS cases in region 8 (Bloomington and surrounding area) is almost as high as the rate for Region 6. Further, the HIV rates for regions 1 and 4 are much higher than their corresponding AIDS rates. In contrast, regions 8, 9 and 10 present a reverse picture, where the newly diagnosed AIDS rates exceed the HIV rates for the same region by a wide margin. Table 26 lists the absolute numbers of new cases and the respective percentages by Health Region.

Table 26: Incidence Numbers, Rates, and Percentages for HIV and AIDS by Health Region

Health Region	HIV			AIDS		
	Number	Rate	Percent	Number	Rate	Percent
1	35	4.7	14.0	13	1.7	7.4
2	21	3.8	8.4	14	2.5	8.0
3	9	1.2	3.6	15	2.0	8.5
4	10	2.8	4.0	1	0.3	0.6
5	15	2.7	6.0	6	1.1	3.4
6	130	8.4	52.0	79	5.1	44.9
7	14	2.0	5.6	17	2.4	9.7
8	6	2.1	2.4	13	4.6	7.4
9	3	1.0	1.2	6	2.0	3.4
10	7	1.8	2.8	12	3.0	6.8
Total	**250**	**4.0**	**100.0**	**176**	**2.8**	**100.0**

Note: One individual was missing information on Health Region

In order to refine the geographic distribution of the newly diagnosed cases this profile also takes a look at the number of cases per county. Table 27 below is listing the incidence numbers for HIV, AIDS and the combined disease by the counties in which the cases had their residence, in declining order of magnitude for the combined disease. For reasons of confidentiality no disease number smaller than 5 has been reported. Counties, where the combined number of persons infected with HIV or diagnosed with AIDS is less than five, have been combined into an *Other* category.

Table 27: Incidence Numbers for HIV, AIDS, and HIV/AIDS by County, 2003

County	HIV Number	AIDS Number	HIV/AIDS Number
Marion	122	72	194
Lake	32	10	42
St. Joseph	13	11	24
Allen	7	9	16
Madison	8	Less than 5	11
Monroe	Less than 5	7	11
Tippecanoe	8	Less than 5	9
Clark	Less than 5	6	8
Vanderburgh	Less than 5	6	8
Vigo	Less than 5	Less than 5	8
Elkhart	5	Less than 5	7
Bartholomew	Less than 5	5	6
Hamilton	Less than 5	Less than 5	6
Floyd	Less than 5	Less than 5	5
Johnson	Less than 5	Less than 5	5
Putnam	Less than 5	Less than 5	5
Other	56	50	62
Total	**251**	**176**	**427**

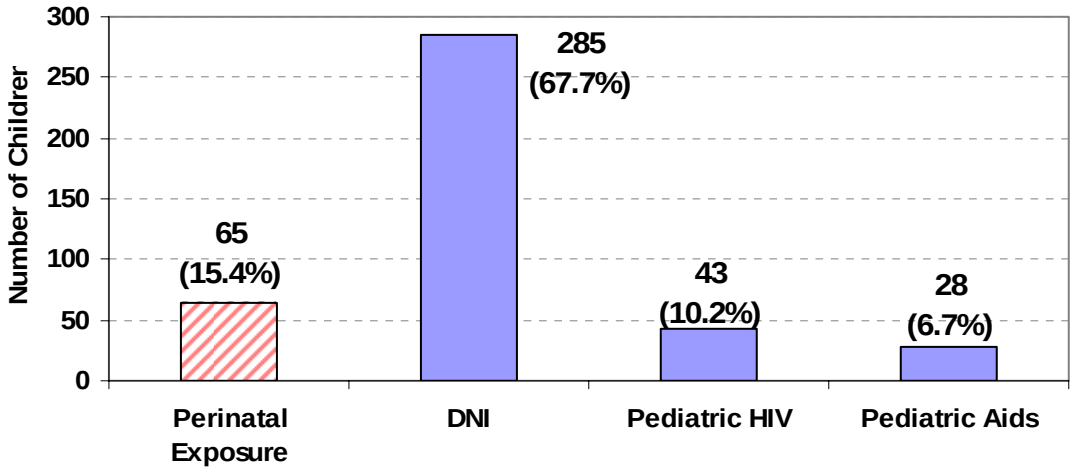
Pediatric Classification and HIV Status of Mothers

All infants born to an HIV positive mother should be reported to the state health department, even though the final HIV status of the child is not known until later. By the end of 2003, the cumulative number of children born to born to HIV positive mothers was 421. All children are classified in one of four categories:

- Exposed: Children that are born to HIV+ women, but their laboratory testing has not yet determined their HIV status
- HIV: Children that are born to HIV+ women and their laboratory has confirmed their HIV+ status
- AIDS: Children that are born to HIV+ women and they meet the definition for pediatric AIDS
- DNI: Definitely Not Infected, the laboratory testing has confirmed that child is definitely not infected

In Figure 38 the distribution of children among these four categories is shown. The numbers are cumulative.

Figure 38: Number of Children born to HIV positive Mothers



At the time of this report 65 children had been born to HIV positive mothers, but their HIV status had not been definitively determined. The majority of the other 356 children were not infected.

Table 28 shows the number of children that were born to HIV positive mothers by the time of the mother's diagnosis.

Table 28: Number of Children born to HIV positive Mothers by the Time of the Mother's Diagnosis

HIV Status of Mother	Perinatal Exposure	Pediatric HIV	Pediatric AIDS	Definitely Not Infected	Total	Percent
Referred to HIV Testing	0	0	1	0	1	0.2%
Unif. after Birth	0	4	0	0	4	1.0%
HIV+ before Pregnancy	36	4	6	135	181	43.0%
HIV+ during Pregnancy	21	7	4	97	129	30.6%
HIV+ at Delivery	1	1	0	5	7	1.7%
HIV+ sometime before Birth	4	4	2	14	24	5.7%
HIV+ after Birth	1	18	11	29	59	14.0%
HIV+ Time Unknown	2	4	2	3	11	2.6%
Unknown	0	1	2	2	5	1.2%
Total	**65**	**43**	**28**	**285**	421	100.0%

A majority of children were born to mothers who's HIV positive status was determined either before (43%) or during (30.6%) a pregnancy. The time of detection of the HIV positive status of the mother is important in estimating the risk to the children of infected mothers. Early detection of the mother's status improves the chances of preventing the spread of the virus from the mother to the child, either during birth or after the child is born. Accordingly, the number of children that were diagnosed as HIV positive or meeting the criteria for pediatric AIDS was about three times larger if the status of the mothers was diagnosed as HIV positive after the child was born, or where the time of infection in regards to the diagnosis was unknown.

Figure 39: Number of Children born to HIV positive Mothers by Age of Child in 2003

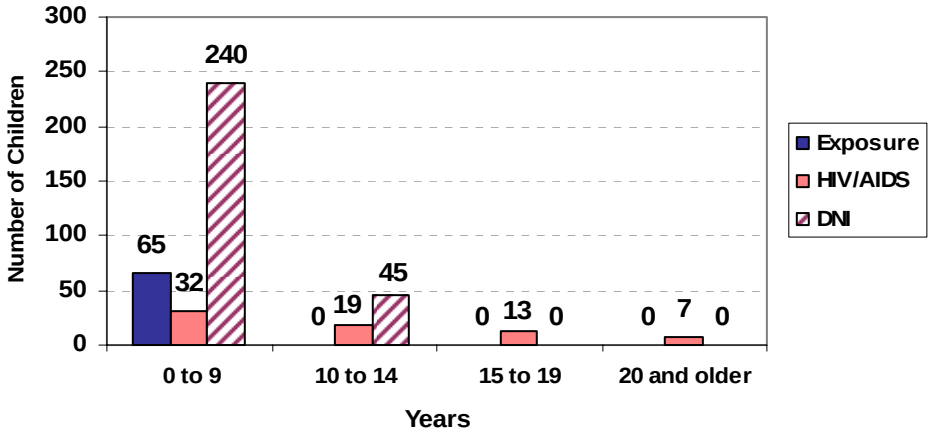
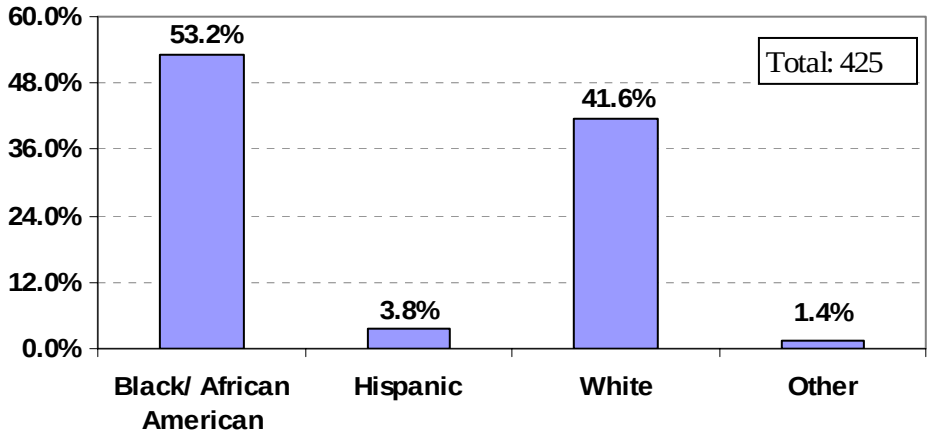


Figure 39 shows the age distribution of all children that were born to HIV positive mothers and that were alive in 2003. The majority of children are in their pre-teen and early teenage years. It is, however, interesting to note that some of the "children" among the total number of 421 are currently teenagers or young adults.

During 2003 there were three new pediatric cases of HIV or AIDS. Of the currently infected 71 children, 50 (or 70%) were born prior to 1995 when prenatal medication was introduced that prevents the transmission of the virus from mother to child during birth. Only 21 children (or 30%) have been born since 1995 that tested positive for HIV or AIDS.

In order to gain a better understanding of the nature of the exposed and infected children Figure 40 will take a look at the racial and ethnic composition of the group of children that were born to infected mothers. That includes those children that are currently in the *Exposed* category, pending the outcome of their laboratory results, as well as those that were diagnosed as either *HIV* positive, developed *AIDS*, or *Definitely Not Infected*.

Figure 40: Cumulative Number of Children born to HIV+ Mothers by Race/Ethnicity



More than half of all children born to infected mothers were African-American. Table 29 shows the exact numbers and corresponding percentages for all four categories by race and ethnicity. The different percentages of children in each category are very consistent with the overall distribution of children by category and race/ethnicity.

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Table 29: Cumulative Number of Children born to HIV+ Mothers by Race/Ethnicity

Race/ Ethnicity	Exposure	%	Pediatric HIV	%	Pediatric AIDS	%	DNI	%	Total	%
African American	41	63.1	23	53.5	17	53.1	145	50.9	226	53.2
Hispanic	6	9.2	0	0.0	0	0.0	10	3.5	16	3.8
White	17	26.2	18	41.9	14	43.8	128	44.9	177	41.6
Other	1	1.5	2	4.7	1	3.1	2	0.7	6	1.4
Total	65	100.0	43	100.0	32	100.0	285	100.0	425	100.0

The number of children for each category is similar to the overall distribution of children by exposure and disease category and race/ethnicity.

Indiana law requires the primary prenatal care provider to offer the pregnant women HIV information, counseling and voluntary testing. Medical studies have shown that pregnant women who are HIV positive can reduce the risk of passing the virus on to their children by two-thirds with proper perinatal care and anti-viral treatment during pregnancy, labor, delivery, and to the child after birth. Table 30 shows the number of children by their infection status broken out by the time the mother received drug treatment to lower her viral load.

Table 30: Cumulative Number of Children by their Infection Status and by the Availability of Drugs

Mother received drug…	Exposure	Pediatric HIV	Pediatric AIDS	DNI
…prior to Pregnancy	20	0	0	65
…during Pregnancy	44	6	4	167
…during Delivery	46	6	0	170
Child received drugs	55	10	2	200

In case of the mother receiving anti-viral drugs before the pregnancy no case of pediatric HIV or AIDS has been diagnosed. When taking the drugs during pregnancy the number of infected children is still very low compared to the not infected children of that same group.

Department of Corrections

The Indiana Department of Corrections (DOC) started conducting mandatory HIV tests as part of the general intake process for every inmate at the beginning of their corrections term on July 1, 2002. Currently, no such test is administered when an inmate is released.

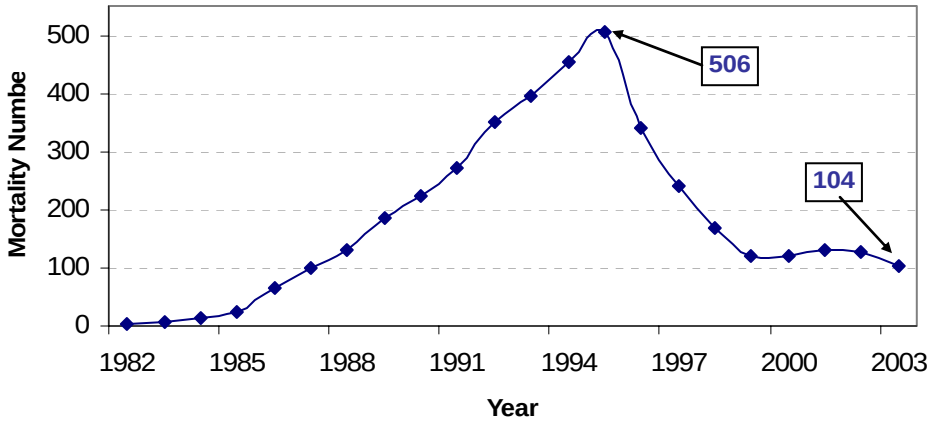
Since the inceptions of the mandatory testing when inmates enter the correctional system the reporting of the results between DOC and ISDH has been slow to respond to changes in inmate's status. Currently ISDH is in the process of updating this dynamic database. At the time of this report the correct number of infected and diagnosed inmates was not available. ISDH provided the following estimates.

According to these best estimates, there are currently 117 inmates that are diagnosed with HIV and 81 that have developed AIDS. Of those 198 infected persons 169 (85%) are in U.S. penitentiaries and 29 (15%) are in Indiana prisons. The overwhelming majority are males (186 or 94%), the rest are females (12 or 6%). The majority of inmates are Black/African-American (64%), followed by White (30%), Hispanic (5%) and Other (1%). Both males and females have a roughly equal ratio of HIV to AIDS. For both gender the ratio is about 60 to 40, in other words roughly 60% of the inmates, both male and female were diagnosed with HIV, while about 40% had met the definition of AIDS.

Mortality

There is a difference between the number of deaths of persons with HIV/AIDS and the number of deaths due to HIV or AIDS. Deaths reported by the HIV/AIDS Surveillance program include all deaths of persons who were infected with HIV or diagnosed with AIDS. The deaths reported by Vital Records (death certificates) include only those who died as a result of AIDS and such was identified on the death certificate. The deaths reported here are deaths of persons who were infected with HIV or diagnosed with AIDS regardless of the cause of death. For example, the death may have been due to an automobile accident. Even though the person did not die due to the presence of HIV, the person is no longer living in Indiana and therefore not contributing to understanding and planning for HIV prevention or medical services. Figure 41 shows the number of deaths of people with HIV/AIDS since 1981, and gives the absolute number of deaths in 1995 at the peak of annual mortality of infected persons, and in 2003. In 1995 a decline in annual death numbers started that was due to the availability and effectiveness of anti-viral drugs.

Figure 41: Number of Deaths by Year in Indiana, 1981 to 2003



In 2003, 104 persons died, that were infected with HIV/AIDS. That equates to a rate of 1.41 per 100 persons compared to a rate of 1.69 per 100 persons in 2002. The mortality rate is calculated by dividing the number of persons that died by the number of the infected population and multiplying that by 100. The trend of declining mortality numbers continued slowly. Table 31 shows the absolute number, percentages and rates broken out by sex for 2003.

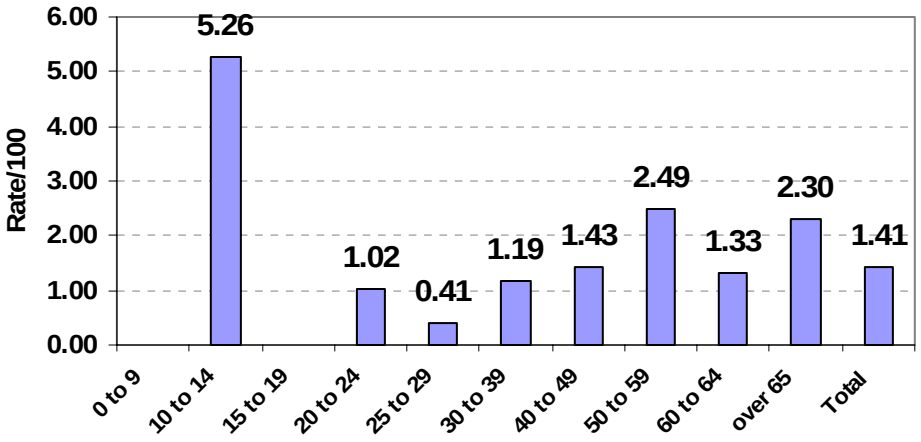
Table 31: Mortality Numbers, Percentages and Rates by Sex, 2003

Sex	Number	Percent	Rate/100
Male	84	80.8	1.14
Female	20	19.2	0.27
Total	104	100.0	1.41

Males were more than four times more likely than females to have died in 2003. In a way the mortality rates reflect the gender composition of the infected population, where males have a higher prevalence rate than females do.

Figure 42 shows the breakout of the mortality rate by age groups.

Figure 42: Mortality Rates by Age at Time of Death in Indiana, 2003



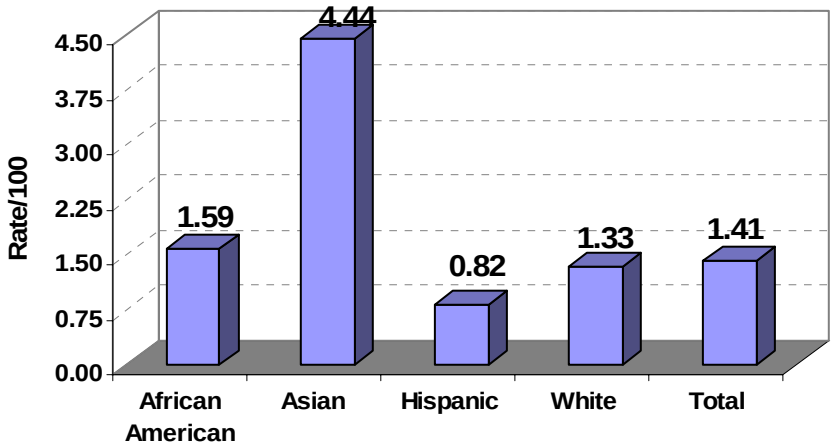
Please note that the high mortality rate in the 10 to 14 year age group is the result of the death of one person. The small number of infected persons in that age group results in the very large rate. Apart from the rate of 5.26 the majority of deaths occurred among persons age 50 to 59, which represents a shift from the previous year, when the majority of deaths occurred among persons age 25 to 40. Table 32 lists the numbers, percentages and rates per 100 by age group, as well as the number of infected persons by each age group that was used to calculate the mortality rates.

Table 32: Mortality Numbers, Percentages and Rates by Age of Death, 2003

Age Group in Years	Number of Deaths	Percent	Mortality Rate/ 100	Total Number of Infected Persons
0 to 9 Years	0	0.0	0.00	32
10 to 14 Years	1	1.0	5.26	19
15 to 19 Years	0	0.0	0.00	31
20 to 24 Years	2	1.9	1.02	197
25 to 29 Years	2	1.9	0.41	483
30 to 39 Years	30	28.8	1.19	2,529
40 to 49 Years	41	39.4	1.43	2,873
50 to 59 Years	24	23.1	2.49	964
60 to 64 Years	2	1.9	1.33	150
over 65 Years	2	1.9	2.30	87
Total	**104**	**100.0**	**1.41**	**7,365**

So far the majority of deaths in 2003 occurred among males age 50 to 59. Figure 43 presents further detail on the racial and ethnic characteristics of the deceased persons.

Figure 43: Mortality Rate by Race and Ethnicity, 2003



The highest mortality rate can be found among Asians. Their rate of 4.44 per 100 infected persons exceeds that of all other racial and ethnic groups. However, when looking at the absolute numbers it becomes evident that the relatively small group of infected persons of Asian background is very sensitive to small changes in the number of deaths from that racial group and therefore shows large rates when compared to the other, larger racial and

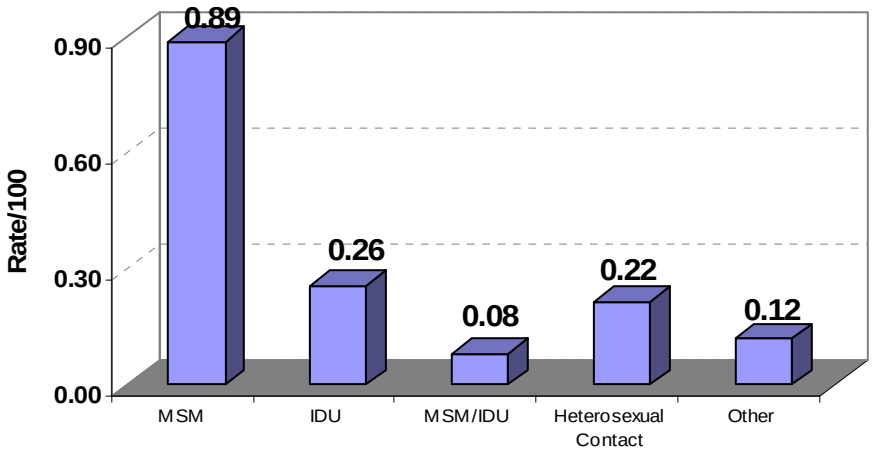
ethnic groups. In other words, small changes in the number of small minority groups produce large rates of change. Table 33 lists the absolute numbers, percentages and rates for the different racial and ethnic groups.

Table 33: Mortality Numbers, Percentages and Rates by Race/Ethnicity, 2003

Race/Ethnicity	Number	Percent	Rate/100	Number of Infected Persons by Race/Ethnicity
African American	40	38.5	1.59	2,515
Asian	2	1.9	4.44	45
Hispanic	3	2.9	0.82	368
White	59	56.7	1.33	4,437
Total	**104**	**100.0**	**1.41**	**7,365**

A look at the transmission modes associated with those persons that died in 2003 shows mostly a similar picture to the prevalence and incidence rates earlier. Figure 44 shows the mortality rates by mode of transmission.

Figure 44: Mortality Rates by Mode of Transmission for Indiana, 2003



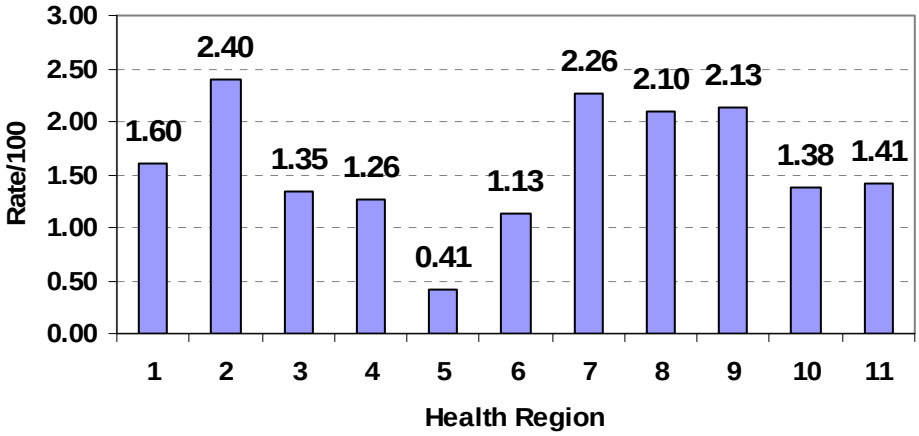
Again, Men having Sex with Men is by far the most dominant category compared to the other risk categories. This trend in mortality reflects that similar picture of the currently infected population that is predominantly associated with MSM. Table 34 shows the corresponding numbers, percentages and rates for the risk categories.

Table 34: Mortality Numbers, Percentages and Rates by Mode of Transmission, 2003

Mode of Transmission/ Risk Category	Number of Deaths	Percent	Rate/100
MSM	54	51.9	0.89
IDU	19	18.3	0.26
MSM/IDU	6	5.8	0.08
Heterosexual Contact	16	15.4	0.22
Other	9	8.7	0.12
Total	**104**	**100.0**	**1.41**

Not surprisingly, there are also differences in the geographic distribution of the mortality rates. Figure 45 shows the mortality rate by Health Region.

Figure 45: Mortality Rate by Health Regions for Indiana, 2003



The mortality rate for each region was calculated by dividing the number of infected people that died in that region by the number of infected people that lived in that region in 2003. Regions 2, 7, 8, and 9 show the highest mortality rates of all Health Regions in Indiana in 2003.

The corresponding numbers, percentages and rates by Health Region are in Table 35.

Table 35: Mortality Numbers, Percentages and Rates by Health Regions for Indiana, 2003

Health Region	Number of Deaths	Percent	Rate/100	Number of Infected Persons by Region
1	17	16.3%	1.60	1,065
2	12	11.5%	2.40	500
3	6	5.8%	1.35	445
4	2	1.9%	1.26	159
5	2	1.9%	0.41	493
6	38	36.5%	1.13	3,371
7	15	14.4%	2.26	664
8	5	4.8%	2.10	238
9	3	2.9%	2.13	141
10	4	3.8%	1.38	289
Total	**104**	**100.0%**	**1.41**	**7,365**

Finally, when ranked among the other states of the U.S., Indiana ranks 25th in the number of HIV related deaths in 2002, the last year that national data was available for comparisons.[5]

[5] Kaiser Family Foundation, (http://www.statehealthfacts.kff.org), 2002

Migration Patterns

By the end of 2003, a total of 151 persons that were diagnosed in Indiana with either HIV or AIDS or HIV/AIDS, were not known to have died, had moved out of the state (Out-Migration). At the other end of the spectrum, 537 persons that were diagnosed with either HIV or AIDS or HIV/AIDS in a state other than Indiana had moved here by the end of 2003 (In-Migration). Table 36 lists the cumulative numbers of "Out-Migrants" by the state to which they moved, while Table 37 lists the cumulative number of "In-Migrants" by the state in which they were diagnosed with HIV or AIDS.

Table 36: Numbers of Persons Diagnosed with HIV or AIDS in Indiana and Currently Living outside the State

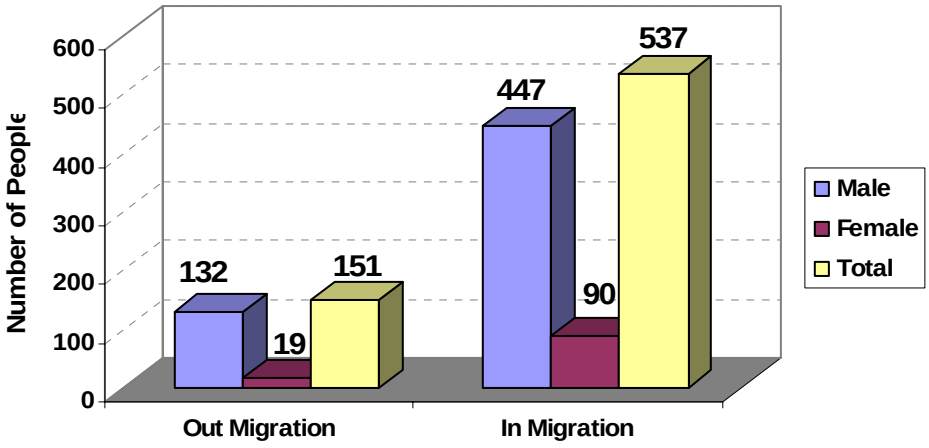
Current State of Residence	Number	Percent	Current State of Residence	Number	Percent
Alabama	3	2.0%	North Dakota	2	1.3%
Arizona	4	2.6%	Nebraska	1	0.7%
California	4	2.6%	New Jersey	1	0.7%
Colorado	3	2.0%	New Mexico	3	2.0%
Washington, DC	1	0.7%	Nevada	2	1.3%
Foreign Country	2	1.3%	New York	2	1.3%
Florida	15	9.9%	Ohio	6	4.0%
Georgia	7	4.6%	Oklahoma	1	0.7%
Iowa	3	2.0%	Pennsylvania	3	2.0%
Illinois	21	13.9%	Rhode Island	2	1.3%
Kansas	1	0.7%	South Carolina	2	1.3%
Kentucky	13	8.6%	Tennessee	11	7.3%
Louisiana	1	0.7%	Texas	6	4.0%
Maryland	1	0.7%	Utah	1	0.7%
Michigan	11	7.3%	Virginia	2	1.3%
Minnesota	3	2.0%	Washington	3	2.0%
Missouri	2	1.3%	Wisconsin	7	4.6%
North Carolina	1	0.7%			
			Total	**151**	**100.0%**

Table 37: Number of Persons that were diagnosed with HIV or AIDS outside of Indiana and Migrated to Indiana

State of Diagnosis	HIV	AIDS	HIV/AIDS	Percent HIV/AIDS
Alabama	3	8	11	2.0
Arkansas	3	3	6	1.1
Arizona	8	7	15	2.8
California	3	37	40	7.4
Colorado	6	3	9	1.7
Washington, DC	0	3	3	0.6
Delaware	0	1	1	0.2
Foreign Country	1	0	1	0.2
Florida	14	59	73	13.6
Georgia	0	19	19	3.5
Iowa	2	3	5	0.9
Illinois	13	58	71	13.2
Kansas	2	3	5	0.9
Kentucky	10	22	32	6.0
Louisiana	3	6	9	1.7
Massachusetts	0	3	3	0.6
Maryland	1	4	5	0.9
Michigan	4	16	20	3.7
Minnesota	5	5	10	1.9
Missouri	13	8	21	3.9
Mississippi	6	4	10	1.9
Montana	0	2	2	0.4
North Carolina	4	2	6	1.1
New Jersey	4	5	9	1.7
New Mexico	1	2	3	0.6
Nevada	3	3	6	1.1
New York	1	3	4	0.7
Ohio	16	18	34	6.3
Oklahoma	4	1	5	0.9
Oregon	0	2	2	0.4
Pennsylvania	1	7	8	1.5
South Carolina	6	3	9	1.7
Tennessee	6	7	13	2.4
Texas	9	31	40	7.4
Virginia	5	4	9	1.7
Washington	1	3	4	0.7
Wisconsin	6	6	12	2.2
West Virginia	1	1	2	0.4
Total	**165**	**372**	**537**	**100.0**

A look at the gender distribution of infected people reveals a large difference between male and female migrant numbers. Figure 46 shows the cumulative numbers of infected persons migrating to and from Indiana by sex. The numbers for both the migration to Indiana and out of the state reflect the total number of infected persons that have been recorded since 1982 up until 2003.

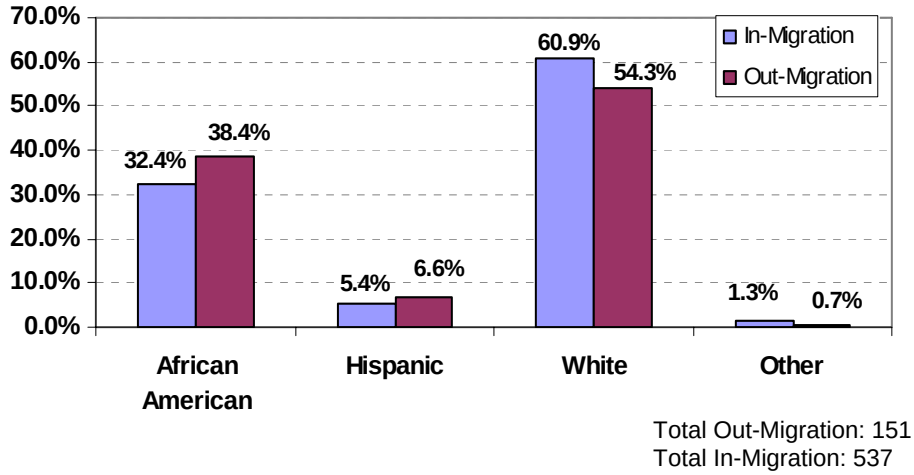
Figure 46: Cumulative Number of Migrants by Sex



In general, for both migration directions, males outnumber females by five to seven times. In both directions of migration males make up roughly 85% of the migrants. There is virtually no difference between the gender distribution of infected people that move to Indiana or of those that are leaving the state, after they have been diagnosed here, other than the difference in numbers.

There are, however, differences when considering the racial and ethnic composition of both migrating groups. Figure 47 shows the number of migrating persons that were alive at the time of this report by their race and ethnicity.

Figure 47: Cumulative Percentage Rate of Migrants by Race/Ethnicity and Migration Direction including 2003



Total Out-Migration: 151
Total In-Migration: 537

In terms of percentages more infected persons of minority background have left the state than have moved to Indiana, whereas more infected White persons have moved to Indiana than left it. However, in terms of absolute numbers, the number of in-migrants exceeds that of persons leaving the state. In other words, since 1982 Indiana's population of HIV/AIDS infected people has seen a net growth of 386 persons because of migration. The absolute numbers and corresponding percentages are listed in Table 38.

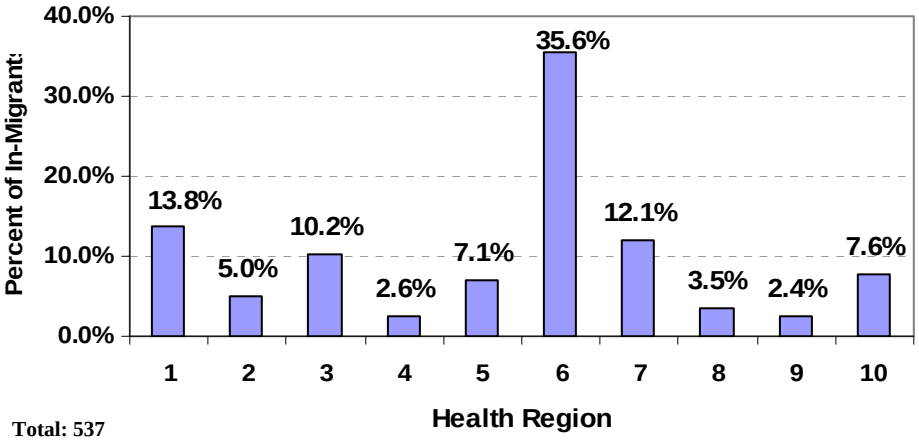
Table 38: Cumulative Numbers and Percentages of Migrants by Race/Ethnicity and Migration Direction, including 2003

Race/Ethnicity	In-Migration	Percent	Out-Migration	Percent
African American	174	32.4%	58	38.4%
Hispanic	29	5.4%	10	6.6%
White	327	60.9%	82	54.3%
Other	7	1.3%	1	0.7%
Total	**537**	**100.0%**	**151**	**100.0%**

In terms of racial and ethnic distribution, both migration groups show roughly the same composition, with White's being about 55% to 60% of all migrants, African-American's contributing about three to four out of ten migrants, and Hispanic's contributing around 6% to the group.

The group of migrants that moved to Indiana after they were diagnosed with HIV/AIDS did settle in various parts of the state. Figure 48 shows the distribution of in-migrants by Health Region in Indiana.

Figure 48: Cumulative Number of In-Migrants by Health Region including 2003



Total: 537

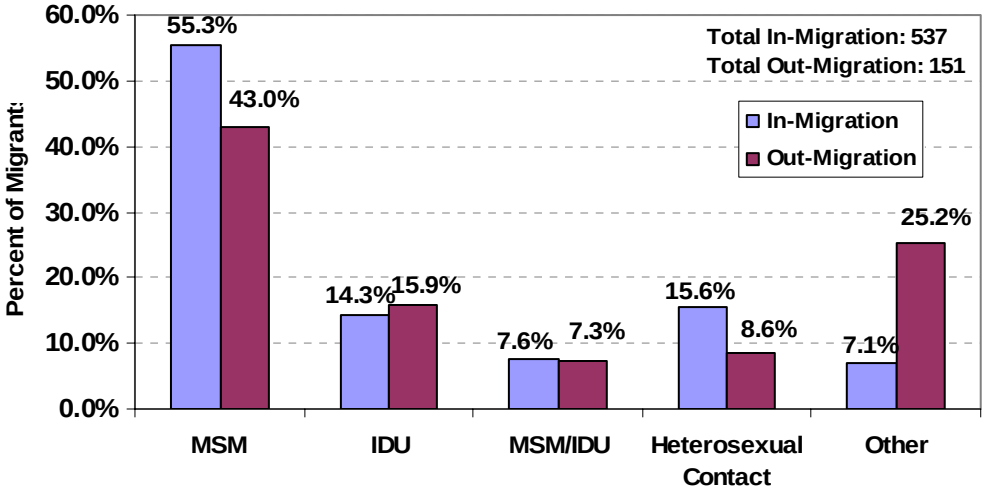
Region Key:

Region	Area
1	Northwest Indiana - Gary
2	Northcentral Indiana – Elkhart/South Bend
3	Northeast Indiana - Fort Wayne
4	Westcentral Indiana - Lafayette
5	Eastcentral Indiana - Marion
6	Central Indiana - Indianapolis
7	Southwestern Indiana - Evansville/Terre Haute
8	Bloomington Area
9	Southeastern Indiana - Cincinnati Area
10	Southern Indiana - Louisville Area

The Health Regions surrounding the urban centers of the state attracted the largest number of people coming to Indiana. Health Region 6, the greater Indianapolis area attracted more than one-third of all in-migrants alone.

Among the migrating population the risk categories were similar in magnitude among those that settled in Indiana and those that left the state. Figure 49 shows the percentage share that each risk category had of the respective migrant population.

Figure 49: Percentage of Migrants by Mode of Transmission, including 2003



Similar to the current infected population overall, *MSM* are the dominant transmission mode among the migrant population. Over half of persons moving to Indiana were associated with that risk category. This ratio is also consistent with the overall population, where about 54% were associated with *MSM*. The same is true for *MSM/IDU* and *Heterosexual Contacts* which both are represented among the migrant population in nearly the same ratios as the current infected population at large. A noticeable difference shows in the percentage of *IDU* between the migrant group and the overall infected population. While the share of IDU's among the HIV/AIDS infected population is about 11%, it is between 14% and 16% for the migrant group. It is unclear from the database alone as to why this behavior is different in this group compared to the larger infected population.

Counseling and Testing Data

Counseling, Testing, and Referral (CTR) data is collected and used (1) to assess the behavioral risks for sex and needle-sharing partners of HIV-infected persons; (2) to evaluate the effectiveness of the CTR program as part of the overall HIV prevention effort; and (3) to improve how other HIV prevention activities, interventions, and services are implemented.

Accurate and consistent data collection is a critical component for evaluating how effective the CTR program is, as well as enabling providers to better focus prevention efforts on those persons most at risk. The data reveals information about the dynamics of HIV transmission in general and it allows for more intensive prevention and education efforts to be applied for specific high-risk groups. To do all this, however, the collected data must be relevant to behavioral risks, HIV/AIDS prevalence, and the demographics of affected communities.

The following numbers represent all cases that have received CTR services during the year 2003.

By the end of 2003, a total of 27,414 tests had been administered. Of those tests, 235 (0.86%) had positive results, which equates to a positive rate of 8.6 per 1,000 tested persons. Out of the total number of tests administered, 16,079 were first time tests. Out of that group of first testers, 109 (0.68%) tested positive for HIV, a rate of 6.8 per 1,000.

The group of tested persons was slightly tilted towards males, where 53% of the tested were male. Table 39 lists the number of tests and the results, as well as the corresponding rates by sex.

Table 39: CTR Tests Performed by Sex in Indiana in 2003

Sex	Number of Tests	Number of Positives	Positive Rate/1,000
Male	14,437 (52.7%)	170 (72.3%)	11.8
Female	12,977 (47.3%)	65 (27.7%)	5.0
Total	**27,414**	**235**	**8.6**

The rate for males and females is calculated by dividing the number of male and female positives by their respective total tested population times 1,000.

Consistent with the results from the Surveillance Report, males have a higher number of positive results than females, even though, in this case, the absolute number of tested persons by sex was comparable. Still, the male positivity rate is more than twice the female rate.

When looking at the CTR results by race and ethnicity, an interesting picture emerges. Table 40 shows the results for the tests performed in 2003 by race and ethnicity.

Table 40: Number of CTR Tests, Positive Results and Rates/1,000 by Race/Ethnicity in Indiana, 2003

Race/Ethnicity	Number of Tests	Positives	Rate/1,000
White	9,687 (35.3%)	97 (41.3%)	10.0
Black/African American	15,202 (55.5%)	121 (51.5%)	8.0
Other	2,525 (9.2%)	17 (7.2%)	6.7
Total	**27,414 (100%)**	**235 (100%)**	**8.6**
Hispanic*	2,364 (8.6%)	17 (7.2%)	7.2

* Please note that persons of Hispanic ethnicity can be of any race and are therefore not treated as a race in the Table 40.

Among the tested population, White's have the highest positivity rate of 10 per 1,000 tested persons, followed by African-American's with 8.0 per 1,000. Africa-Americans make up more than half of the tested persons as well as more than half of all positive test results. In the last Census of the general population about 4% of Indiana's population identified themselves as Hispanic/Latino. In the group of tested persons more than twice as many identified as ethnic Hispanics. The percentage of positive results (7.2%) among the group of tested individuals is slightly higher than the percentage of positive persons (5.0%) among the infected population of the state.

Age wise, the majority of positive results were found in the 30 to 39 year old group. Figure 50 shows the positive rates by all age groups.

Figure 50: CTR Positivity Rates per 1,000 by Age Group in Indiana, 2003

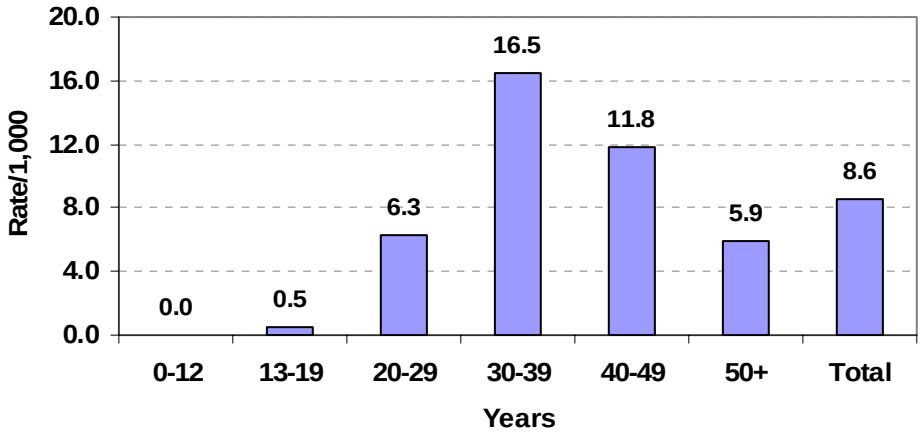


Table 41 lists the number of tested persons, the number of positive results and the positivity rate by age group.

Table 41: Absolute Number, Number of Positive Results and Positivity Rate by Age Group in Indiana, 2003

Age Group in Years	Number of Tests	Percent	Number of Positive Results	Percent	Rate/1,000
0-12	24	0.1	0	0.0	0.0
13-19	3,682	13.4	2	0.9	0.5
20-29	11,988	43.7	76	32.3	6.3
30-39	6,128	22.4	101	43.0	16.5
40-49	3,895	14.2	46	19.6	11.8
50+	1,697	6.2	10	4.3	5.9
Total	**27,414**	100.0	**235**	100.0	**8.6**

The majority of tests were performed among the group of 20 to 29 year olds. However, the highest number of positive results occurred among 30 to 39 year olds. Their rate was at 16.5 per 1,000 tested persons.

So far the highest rates of positive test results have been among white men, ages 30 to 39. This profile will now take a closer look at the risk category associated with the tested persons.

Table 42 lists the total numbers and the positive results, as well as the positive rates for each risk category.

Table 42: CTR Test Performed by Mode of Transmission in Indiana, 2003

Risk Category	Number of Tests	Positives	Rate/1,000
MSM	2,494	111	44.5
IDU	1,307	11	8.4
MSM/IDU	203	4	19.7
Sex Partner At Risk	3,209	44	13.7
Sex While Using Drugs	2,889	11	3.8
Heterosexual Contact	11,003	45	4.1
Child of Women with HIV/AIDS	17	0	0.0
STD Diagnosis	5,043	4	0.8
Sex for Drugs/Money	238	2	8.4
Hemophilia/ Blood Recipient	100	0	0.0
Victim of Sexual Assault	250	0	0.0
Health Care Exposure	206	1	4.9
No Acknowledged Risk	366	2	5.5
Total	27,325	235	8.6

The highest rates are to be found among MSM and MSM/IDU's. The CTR database allows for a more detailed look at the risk categories than the CDC mandated transmission modes of the Surveillance Report. Throughout the state HIV tests are performed at various different sites. Table 43 lists the number of tests that were performed at the different types of sites for Indiana.

Table 43: CTR Tests Performed by Site Type in Indiana, 2003

Test Site	Number of Tests	Positives	Rate/1,000
CTR Stand Alones	7,417	107	14.4
STD Clinic	8,388	49	5.8
Drug Treatment	2,105	7	3.3
Family Planning	3,262	11	3.4
Community Health Centers	1,229	29	23.6
Prison/Jail	1,790	6	3.4
Other	2,658	24	9.0
Prenatal/OB	376	0	0.0
TB Clinic	1	0	0.0
Hospital/HRSA Clinic, Lifesaver	131	0	0.0
Field Visit	57	2	35.1
Total	**27,414**	**235**	**8.6**

The majority of tests were performed at STD Clinics throughout the state. Yet the highest rate of positive HIV test results was found at Community Health Centers. Field Visits were conducted to notify exposed partners.

The geographic distribution of the tested population is listed in Table 44 below.

Table 44: Number of CTR Tests, Positive Results and Rates per 1,000 by Health Regions in Indiana, 2003

Health Region	Number	Percent	Positives	Percent	Rate/1000
1	2,123	7.7%	23	9.8%	10.8
2	2,851	10.4%	20	8.5%	7.0
3	3,123	11.4%	29	12.3%	9.3
4	576	2.1%	4	1.7%	6.9
5	1,448	5.3%	7	3.0%	4.8
6	11,767	42.9%	123	52.3%	10.5
7	2,575	9.4%	8	3.4%	3.1
8	1,142	4.2%	8	3.4%	7.0
9	639	2.3%	4	1.7%	6.3
10	882	3.2%	9	3.8%	10.2
Unknown	288	1.1%	0	0.0%	0.0
Total	**27,414**	**100.0%**	**235**	**100.0%**	**8.6**

Finally, the tested persons are broken out by the type of insurance coverage that each tested person claimed. Table 45 lists the results of that breakout.

Table 45: CTR Tests Performed by Insurer of the Tested in Indiana, 2003

Category	Number of Tests	Positives	Rate/1,000
Self	1,659	9	5.4
Employer	5,121	44	8.6
Public Assistance	2,368	18	7.6
None	17,765	155	8.7
Military/VA	500	9	18.0
Total	27,413	235	8.6

The majority of tested had no insurance coverage and had the largest number of positive results (155). The rate of positive HIV results for persons without insurance coverage was the second highest (8.7 per 1,000 persons), second only to the rate for Military/VA with rate of 18.0 per 1,000 persons.